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January-February 1989

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AGRICULTURAL OUTLOOK

January-February 1989/AO 149

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In Brief . . . The Outlook for Livestock, Crops, Farm Income

The 1989 agricultural outlook is for smaller global crop supplies, firm demand, and higher prices. The 1988 drought sharply cut U.S. and Canadian crops, lowering world production more than 6 percent. Crop prices will continue to reflect these smaller supplies early in 1989. But, expanded output is likely in the second half, stopping the drawdown in stocks.

World supplies of animal products will remain large, dampening livestock price increases; meat output is expected to rise nearly 1 percent. Demand for both crop and animal products will be bolstered by continued world economic expansion and population growth.

Global feed grain output in 1988/89 will be down around 10 percent, and oilseed production is expected to decline 3 percent. The wheat harvest will hold near a year earlier as larger crops in the EC, Eastern Europe, and several other countries offset declines in North America.

In the United States, feed grain output dropped one-third and soybeans one-fifth. Demand, however, remains relatively strong in 1988/89. As a result, U.S. grain and soybean stocks will be cut around 60 percent, but carryout still will represent 2-3/4 months of use.

Net cash income of U.S. producers in 1989 is likely to be \$48-\$52 billion, down from 1988's record-tying estimate of \$57 billion. Firm prices for most commodities and larger production will mean total farm receipts slightly above the 1988 record. Cash expenses are expected to rise moderately with expanded acreage and costlier inputs. Direct Government payments to farmers are likely to fall one-fifth.



Farmers are expected to spend \$115-\$118 billion for inputs in 1989, 4-6 percent above 1988. The quantity of seed used for the major field crops could be up 10-15 percent, and fertilizer use likely will rise 7-10 percent. Seed prices are expected to climb significantly; USDA's prices paid index for seeds is likely to increase 5-10 percent.

Large meat supplies and bigger crops expected for 1989 likely will hold the retail food price increase at 3-5 percent, about the same as in 1988. The farm value of consumers' food purchases is expected to rise further in 1989, after a 3.7-percent increase in 1988.

U.S. beef production likely will decline 7 percent in 1989, to the lowest since 1980. The biggest impact on total beef supplies should come from sharply reduced fed cattle slaughter. Lower feedlot placements last summer, combined with fall placements near a year earlier, may result in record prices in the spring.

Expected bigger supplies of poultry and continued large pork output will leave total 1989 U.S. meat supplies only slightly below 1988's record. The large supplies may hold down retail price gains for beef. Even so, consumers' demand for beef may be tested: Retail beef prices rose nearly 5 percent in 1988, with further increases of 1-3 percent likely in 1989.

Despite lighter supplies and higher prices, world trade in wheat, feed grains, and soybeans combined likely will decline only about 4 percent in fiscal 1989. Trade in wheat and soybeans will be down, but coarse grain exports will be boosted by larger Soviet imports. Rice trade will benefit from a larger crop. The total volume of U.S. farm exports probably will be down 8 percent.

The value of U.S. agricultural exports in 1989 is forecast to grow \$1 billion, to \$36.5 billion. A \$2.5-billion rise expected for grain and feed exports will more than offset declines in cotton and oilseeds. World prices for wheat, corn, and soybeans are expected to be the highest since 1985. Exports of high-value products are likely to remain close to fiscal 1988's record \$16.4 billion.

The world cotton market in the 1980's has been characterized by erratic gains in production, steady increases in consumption, and expanding trade. Current relatively low cotton prices should encourage larger global use and trade in 1988/89, while holding output close to 1988.

World sugar production in 1988/89, forecast at 106.8 million metric tons (raw value), is 3 percent above last year and a third straight record. Despite the recent gain in world prices, consumption will be a record, and stocks will be drawn down only slightly.



Agricultural Economy

Remarks by James R. Donald, chairperson, World Agricultural Outlook Board, at USDA's Annual Agricultural Outlook Conference, December 1988

The global agricultural outlook for 1989 is highlighted by smaller crop supplies, firm demand, and higher prices. Demand for both crop and animal products will be bolstered by continued world economic expansion and population growth.

The 1988 drought sharply cut U.S. and Canadian grain and oilseed crops, putting a dent in world supplies. Crop prices will continue to reflect these smaller supplies early in 1989. But, expanded output is likely in the second half, stopping the drawdown in stocks. Supplies of animal products will remain large, dampening livestock price increases.

For U.S. farmers, this outlook will mean slightly higher receipts than in 1988, with a small gain in crop marketings and slightly higher livestock prices. But, producers will get less in direct Government payments, and production expenses will rise with expanded acreage and costlier inputs.

The 1989 outlook favors the food shopper, even though the drought trimmed potential meat output. Meat supplies

will be the second largest ever, boosted by continued large pork and poultry supplies.

Global supplies of wheat, feed grains, and oilseeds will be smaller in 1988/89. Production will be down, mainly because of drought-reduced output in the United States and Canada. World supplies of cotton and rice will be larger, though, mainly because of larger crops abroad.

Despite tighter supplies, world crop consumption and trade will decline only modestly in 1988/89, for a variety of reasons: expansion in world economic activity, larger animal product output, population growth, greater crop production abroad, and relatively large U.S. feed grain stocks carried over from 1987/88.

The impact of 1988's reduced crops will be more evident on stocks. Global grain and soybean stocks will be worked down about one-third in 1988/89. In relation to use, world stocks will decline sharply, with 1988/89 carryover representing about 2 months of use for grains and 1-1/2 months for soybeans.

In the United States, yields were sharply lower for most crops and some acreage was lost to the drought. Output dropped nearly 30 percent for grains and over 20 percent for soybeans. Demand, however, remains relatively strong in 1988/89. Also, Government feed assistance to livestock producers suffering severe drought losses will lead to some added feed use.

As a result, U.S. grain and soybean stocks will be cut around 60 percent. Grain stocks at the end of 1988/89 will still represent 2-3/4 months of use. Higher prices are indicated for wheat, feed grains, and soybeans. Prospective U.S. cotton stocks are up considerably.

U.S. farm exports will see lower volume in fiscal 1989. However, prices of exported commodities are expected to be substantially higher. In fiscal 1987/88, the value of U.S. agricultural exports rose around one-fourth in response to both higher prices and a larger volume. U.S. agricultural imports were slightly above a year earlier.

Global Crop Production Falling 6 Percent

Global crop output is projected to decline more than 6 percent in 1988/89, reflecting a nearly 30-percent drop in U.S. production. Canadian grain output is down one-third.

Grain crops in the Soviet Union and China also have suffered from adverse weather, while weather was generally favorable for EC grains. Global feed grain production will be down around 10 percent, primarily reflecting lower U.S. output.

World wheat production will hold near a year earlier, as lower U.S. and Canadian output is nearly offset by higher yields and bigger crops in the European Community, Eastern Europe, and several other countries. Rice output will be up 4 percent as yields recover in India and Thailand.

World oilseed production is expected to be down 3 percent as the smaller U.S. soybean crop more than offsets prospective larger soybean crops in South America.

The global cotton crop is up 5 percent, mostly in response to expanded acreage and higher yields in India and the Soviet Union.

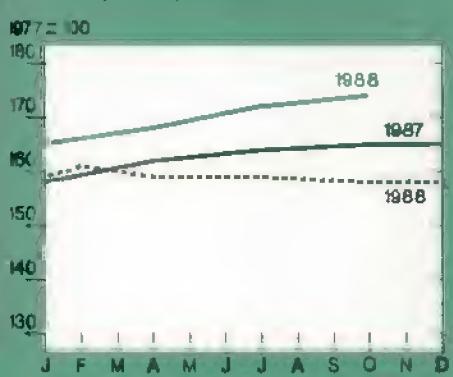
World meat output is expected to increase nearly 1 percent in 1989, with expanded output of poultry and pork offsetting less beef and veal. Poultry meat production is expected to be up about 3 percent, with output expanding in most countries. Pork output may be up 1 percent, with larger production in China and a slight increase in the United States. Larger meat output likely will boost feed use.

Economic growth in 1989 should benefit from increased net exports by the United States and several developing countries. But, growth rates in many countries will be held down by trade imbalances, budget deficits, high debt loads, and lack of capital for investment.

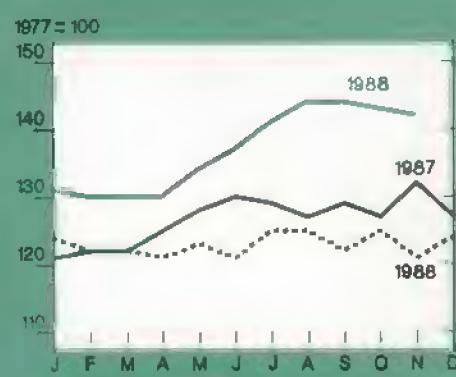
The economic situation in developing countries—including several countries in Latin America, Africa, and the Middle East—is likely to show moderate improvement. The fastest growth again

Prime Indicators of the U.S. Agricultural Economy

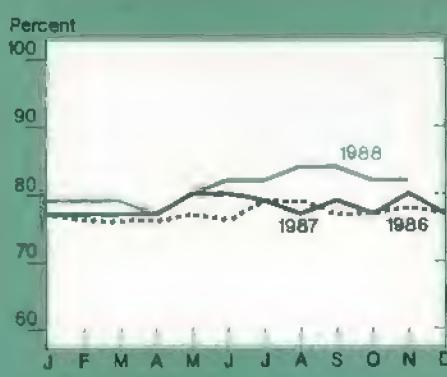
Index of prices paid by farmers¹



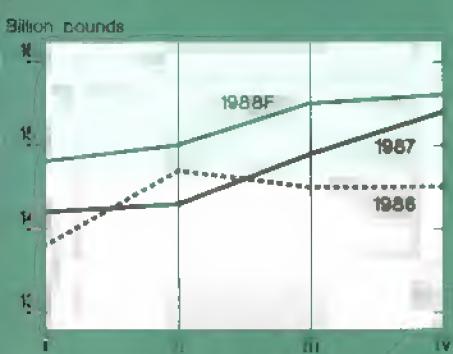
Index of prices received by farmers²



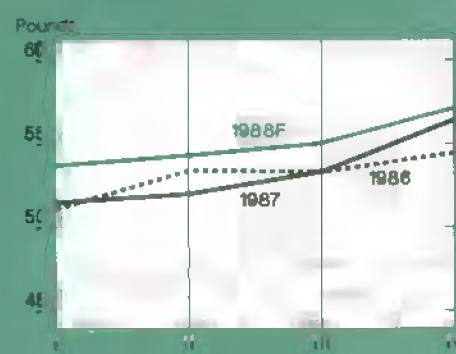
Ratio of prices received to prices paid



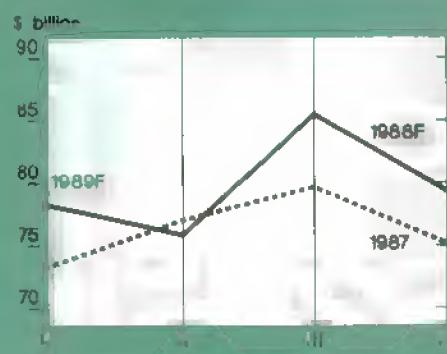
Red meat & poultry production³



Red meat & poultry consumption, per capita^{3,4}



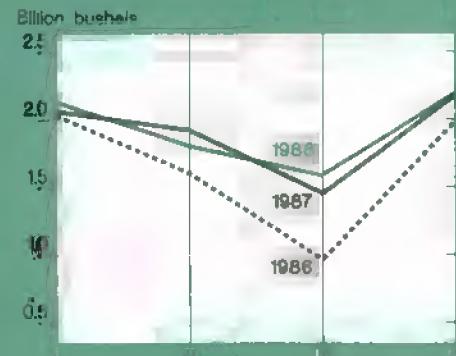
Cash receipts from livestock & products⁵



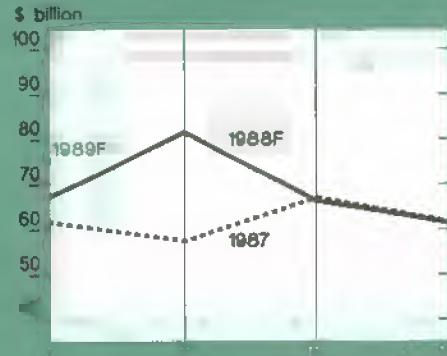
Corn beginning stocks⁶



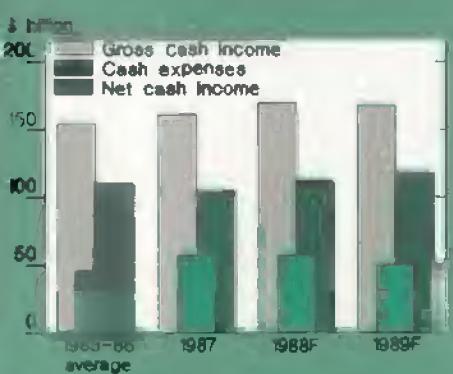
Corn disappearance⁶



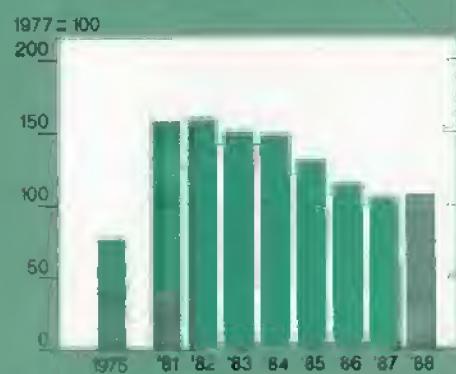
Cash receipts from crops⁵



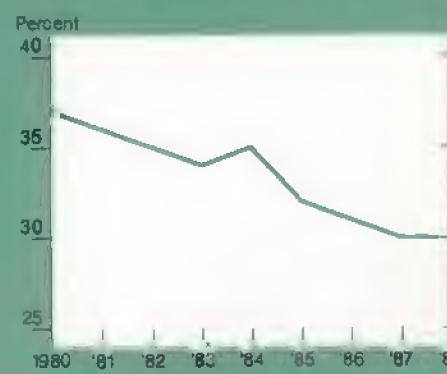
Farm net cash income



Farm real estate values



Farm value/retail food costs



For commodities and services, interest rates and wages. Beginning in 1986, data are only available quarterly. ²For all farm products. ³Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts. ⁴Retail weight. ⁵Seasonally adjusted annual rate. ⁶Dec.-Feb.; II=Mar.-May; III=June-Aug.; IV=Sept.-Nov. F=forecast.

will be in East Asia, where agricultural imports have been rising with expanding consumer demand, especially for meat.

The U.S. dollar strengthened in the first half of 1988, but has weakened in recent months. A lower dollar likely will result in larger exports, smaller imports, and expanded U.S. investment.

U.S. Grain and Soybean Exports Will Be Smaller

Global consumption of wheat, feed grains, and soybeans is expected to be down less than 1 percent in 1988/89, reflecting tighter supplies and higher prices.

World trade in these crops will decline about 4 percent because of higher prices and reduced supplies, particularly in the United States and Canada. Trade in wheat and soybeans will be down. However, coarse grain exports will be boosted by larger Soviet imports, and rice trade will benefit from a larger crop.

In 1988/89, U.S. export volume for wheat, feed grains, and soybeans is expected to fall around one-tenth, led by a drop of around 30 percent for soybeans. Soybean exports will fall because of drought-reduced U.S. supplies, larger foreign production of other oilseeds and expanded soybean output in South America.

The U.S. share of world wheat trade likely will improve, but exports will decline as total trade shrinks. The U.S. share of world cotton trade and U.S. exports will decline sharply, stemming from market losses to competitors.

With smaller world supplies and only modestly smaller consumption, global grain stocks will decline to about 269 million tons, nearly one-third below beginning stocks. Declines will vary from 4 percent for rice to 54 percent for corn. Soybean stocks will be down 30 percent. In sharp contrast, cotton stocks are projected 4 percent higher.

Global stocks of grains and soybeans are being pulled down primarily by the decline in U.S. stocks. The projected 50-percent increase in U.S. cotton stocks is due mainly to reduced exports.

U.S. Grain Supply and Demand

	1986/87	1987/88	1988/89 forecast	Change from year ago
	Million metric tons			Percent
Beginning stocks	181	204	169	-17
Production	314	277	196	-29
Total supply	497	483	368	-24
Feed & residual	157	154	144	-6
Food, seed, & industrial	60	61	62	+2
Domestic use	217	215	206	-4
Exports	76	98	94	-4
Total use	293	313	300	-4
Ending stocks	204	169	68	-60
Stock-use ratio	70	54	23	..

U.S. commodity supplies will be smaller in the coming year, with the drought reducing crop supplies and dampening meat output. Livestock prices should average higher, while calendar-year crop prices may not match 1988 if crop output recovers next summer.

Farmers' marketing receipts in 1989 should slightly exceed the record \$149 billion estimated for 1988. Gross cash income could slip slightly from 1988's \$169 billion, based on smaller direct Government disaster and deficiency payments.

Net cash income is likely to decline about one-tenth from the 1988 record-setting estimate of \$57 billion. Net farm income, unlike cash income, will be supported by an increase in the value of inventories and is expected to total about one-fifth above the \$39 billion estimated for 1988.

Production expenses likely will increase. Cash expenses will be up from \$111 billion in 1988, as the volume of inputs used expands because of bigger crop acreage and higher prices for fertilizer and chemicals.

Large meat supplies and bigger crop output will limit food price increases to 3-5 percent in 1989. In 1988, food prices rose about 4 percent, partly reflecting higher prices for some drought-related items, including cereals and bakery products, vegetable oils, fruit and vegetables. A moderate rate of inflation, 4 to 4-1/2 percent, will not put great pressure on food prices in 1989.

U.S. Crops Likely To Rebound

Three developments point to expanded U.S. acreage for grains and oilseeds and higher yields in 1989:

- lower acreage reduction requirements for Government program participation,
- higher crop prices, and
- the historical pattern of yields increasing following a drought year.

In 1988, the United States set aside from production 78 million acres. Of this total, 54 million were under annual programs and can be brought back into production rather quickly.

Because of drought-reduced supplies, acreage reduction requirements for participation in the farm program have been lowered for most 1989 crops. For wheat, the requirement has been lowered from 27.5 percent to 10. For corn, the requirement has been lowered from 20 percent to 10, and the paid land diversion has been reduced from 10 percent to zero. However, the acreage reduction for cotton has been increased from 12.5 percent to 25.

Some 43 million acres were removed from wheat and feed grain production in 1988 under annual programs. Perhaps half this total will come back into production in 1989. Soybean area could be up 1-3 million acres.

U.S. acreage expansion in 1989 will be encouraged further by this season's higher crop prices. Prices for 1988/89 likely will average higher by 40-50 percent for wheat, 30-40 percent for corn, and 20-30 percent for soybeans.

If yields are weighted together for major crops (wheat, rice, corn, sorghum, barley, oats, and soybeans), data show that

yields usually rebound from severely reduced levels caused by bad weather.

The normal trend increase is about 1.5 percent per year, and the trend projection for 1989 shows yields increasing almost 30 percent from 1988. The United States will have adequate crop supplies until new crops become available in 1989. Given average weather, these new crops could be up around 50 percent in response to expanded acreage and higher yields. Even so, with strong domestic and export use, stock rebuilding will be modest.

Cattle

Beef production in 1989 is expected to decline 5-7 percent from 1988, reaching the lowest since 1980. In contrast, expected larger supplies of poultry and continued big pork output will leave total meat supplies only slightly below the 1988 record.

The general economy in 1989 is expected to grow at a slightly slower pace than in 1988. Rising consumer incomes and high employment rates likely will provide continued support for meat prices. A favorable economic environment will have to be maintained if record retail beef prices expected in 1989 are to be met with little consumer resistance.

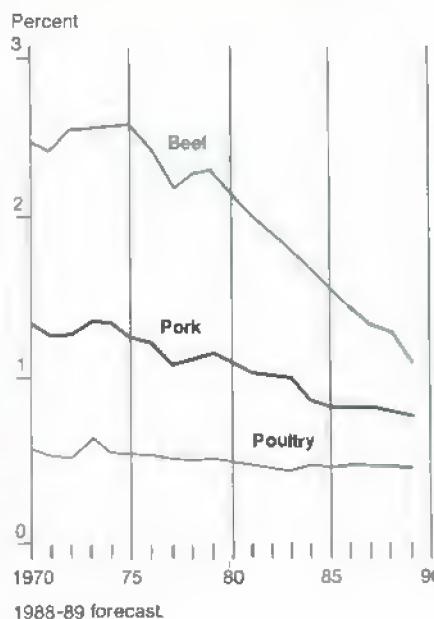
Production Costs To Go Up

Production costs may rise modestly in 1989. Feed costs are already up from a year ago. Smaller set-aside requirements for wheat and feed grains should enhance 1989 crop prospects, but may not ease grain prices substantially until summer, when harvest prospects become clearer.

Pasture and range feed conditions on November 1 were rated at 59 percent, 12 points below a year earlier and 17 points below the 1977-86 average. However, North Dakota was the only State remaining in the extreme drought range.

Hay production as of October 1 was estimated at 130 million tons, 13 percent below the 1987 output, even though harvested acreage was the largest since 1965. Hay prices received by farmers averaged \$87.50 per ton in October, up \$25.40 from a year before.

Consumers Spending Smaller Share of Income on Meat



Further hay price increases can be expected in the winter, particularly in areas most affected by the drought and dependent on off-farm feed sources. Lower hay supplies in storage and continued poor range and pasture conditions in several Plains and Western States may force additional culling of beef cow herds if winter weather is extreme and cattle require supplemental hay purchases.

The U.S. cattle inventory dropped below 100 million head on January 1, 1988, for the first time since 1961. The 1987 and 1988 calf crops were also the lowest since 1961.

Heifers calving and entering breeding herds during the first half of 1988 jumped 10 percent from a year earlier, suggesting that producers were beginning to turn inventory numbers up. However, the drought was well underway as the breeding season began and likely stalled the expansion for another year.

The drought appears to have had an even greater impact on the dairy sector, which responded to higher feed costs by increasing culling rates. Beef cow culling in 1988 remained well below a year earlier through the heat of the drought, with most producers able to find alternative feed sources.

Further declines in beef cow slaughter are expected in 1989, as well as some moderation in dairy cow culling rates. Total commercial cow slaughter could decline to 6.1 million head, down 2 to 3 percent from 1988.

Net returns to cow/calf producers likely averaged \$40-\$45 per head during 1988, below the \$54 of a year earlier, but still the third straight year of positive returns. Returns should remain in this range in 1989, as high production costs are offset by stronger prices.

The positive returns may provide some recovery from the losses of the early 1980's and shift producers into expansion. Cattle inventories on January 1, 1989, will probably be below 100 million head, possibly falling below 1988's 99 million.

Over the coming year, stocker operators likely will be able to outbid cattle feeders for the reduced supply of stocker-feeder cattle. Retaining feeder cattle for additional weight gain before marketing will put less pressure on producers to expand herds. While cattle numbers are expected to begin to expand in 1989/90, the expansion likely will be slow, and the inventory could remain below 105 million until at least the mid-1990's.

Feeder Cattle Supplies Low

Producers holding stocker cattle during fall 1988 negotiated from a strong position and kept yearling prices above \$80 per cwt during much of October and November. Yearling feeder cattle supplies outside feedlots were down 2.5 percent from a year earlier on October 1, while the inventory of lighter calves dropped 1 percent. This was the lowest feeder cattle supply since data collection began in 1973.

While the 1988 calf crop was about unchanged from a year earlier, increased heifer retention for herd rebuilding could sharply reduce supplies over the next couple of years. Uncertainties concerning Mexican feeder steer availability also will affect fed cattle marketings, particularly in first-half 1989.

Tighter feeder cattle supplies, smaller profit margins, and higher feed costs likely will keep cattle feeders in a cautious mood in spite of expectations for a stronger market in the spring.

Fed Marketings Decline

Fed cattle marketings remained large in 1988 despite tight feeder cattle supplies. Cumulative marketings from feedlots approached the records of 1972 and 1978. Nevertheless, when supplies of fed cattle tightened last spring, prices of fed cattle averaged a record \$73 per cwt at Omaha for the quarter. Some support for the higher fed cattle prices came from lower processing beef supplies, with nonfed steer and heifer slaughter down sharply and cow slaughter the lowest since 1980.

Nonfed steer and heifer slaughter will decline further in 1989 as these animals are bid into feedlots, but the biggest impact on total supplies will come from sharply reduced fed cattle slaughter. U.S. feedlot marketings for 1989 could decline 6 to 8 percent, or about 2 million head.

Lower feedlot placements last summer, and fall-quarter placements near a year earlier, may have set the stage for record prices next spring. Beyond the spring quarter, continued year-over-year declines in beef supplies could support higher trading ranges for slaughter cattle. Prices for Choice steers at Omaha in 1989 could average near the mid-\$70's per cwt, up from \$70 a year earlier.

Retail beef prices rose nearly 5 percent in 1988, reaching new highs during the summer, when they averaged \$2.59 per pound. Further increases of 1-3 percent are likely in 1989.

The higher price of beef relative to competing meats has always been a concern, but 1989 may test consumer demand for beef products. Per capita meat disappearance is expected to decline slightly from 1988's record 220 pounds. Large poultry and pork supplies could help hold down beef price gains.

U.S. beef imports in 1988 reached almost 2.4 billion pounds, carcass weight, up 4 percent from a year earlier. In 1989, imports may drop 6 to 8 percent because of smaller supplies in exporting countries. However, imports will remain near 9 percent of U.S. beef consumption—unchanged from 1988.

About 90 percent of imported beef is covered by the Meat Import Law, which sets a ceiling on imports. The trigger

level for 1988 was 1,525 million pounds, product weight, up 6 percent from 1987. To ensure that the trigger level was not reached, voluntary restraint agreements were negotiated with Australia and New Zealand; the two countries agreed to limit 1988 exports to the United States to 800 and 445 million pounds, respectively. These levels increased to 811 and 451 million pounds in December as imports from other countries fell below expectations.

U.S. Beef Exports Rise

U.S. beef exports in 1988 totaled an estimated 654 million pounds, carcass weight, up 8 percent from a year earlier. During 1989, beef exports are forecast to rise again, mainly because of bigger sales to Japan. Exports would represent 2.8 percent of U.S. beef production, up from 1.4 percent in 1985.

U.S. exports of live cattle to Mexico during January-August increased from 30,791 head in 1987 to 120,554 in 1988. In 1988, cattle for slaughter were 86 percent of total U.S. cattle exports to Mexico, compared with 45 percent in 1987. Cattle exports to all destinations were about 215,000 head, up 59 percent. Unless export guarantees are extended for 1989, exports are forecast to decline to 125,000 head.

U.S. Cattle Imports Up

U.S. imports of cattle, mostly feeder cattle, for the first 9 months of 1988 totaled 1 million head, up 23 percent from 1987. Imports from Mexico started out strong. When they were banned during the summer by the Mexican Government, imports from Canada increased. U.S. imports of Canadian cattle during January-August were up 56 percent over 1987, to 290,000 head, while imports from Mexico rose 14 percent to 732,000.

Total imports for 1988 were an estimated 1.4 million head, up 19 percent. In 1989, cattle imports may decline about 4 percent, particularly if Mexican feeder cattle exports are restricted by a new export tax that went into effect in November.

(Steve Reed and Ron Gustafson (202) 786-1286)

Hogs

Pork supplies in 1989 are forecast at nearly 64 pounds per capita (retail weight), about the same as in 1988. Commercial pork production likely will rise above 1988 in the first half of the year, but fall below in the second half. For the year, production may show little change from 1988.

U.S. pork imports are forecast to be near 1987 and 1988 levels. Exports are likely to decline, but should remain above the 1987 level. Beginning stocks of frozen pork probably will be larger than a year earlier.

Retail pork prices may average 1 to 3 percent higher in 1989. Barrow and gilt prices could average \$42-\$48 per cwt, compared with 1988's \$43. Year-to-year price increases likely will be greatest in the fourth quarter.

Continued moderate economic growth will support livestock and meat prices in 1989, particularly prices of higher quality meats and value-added products.

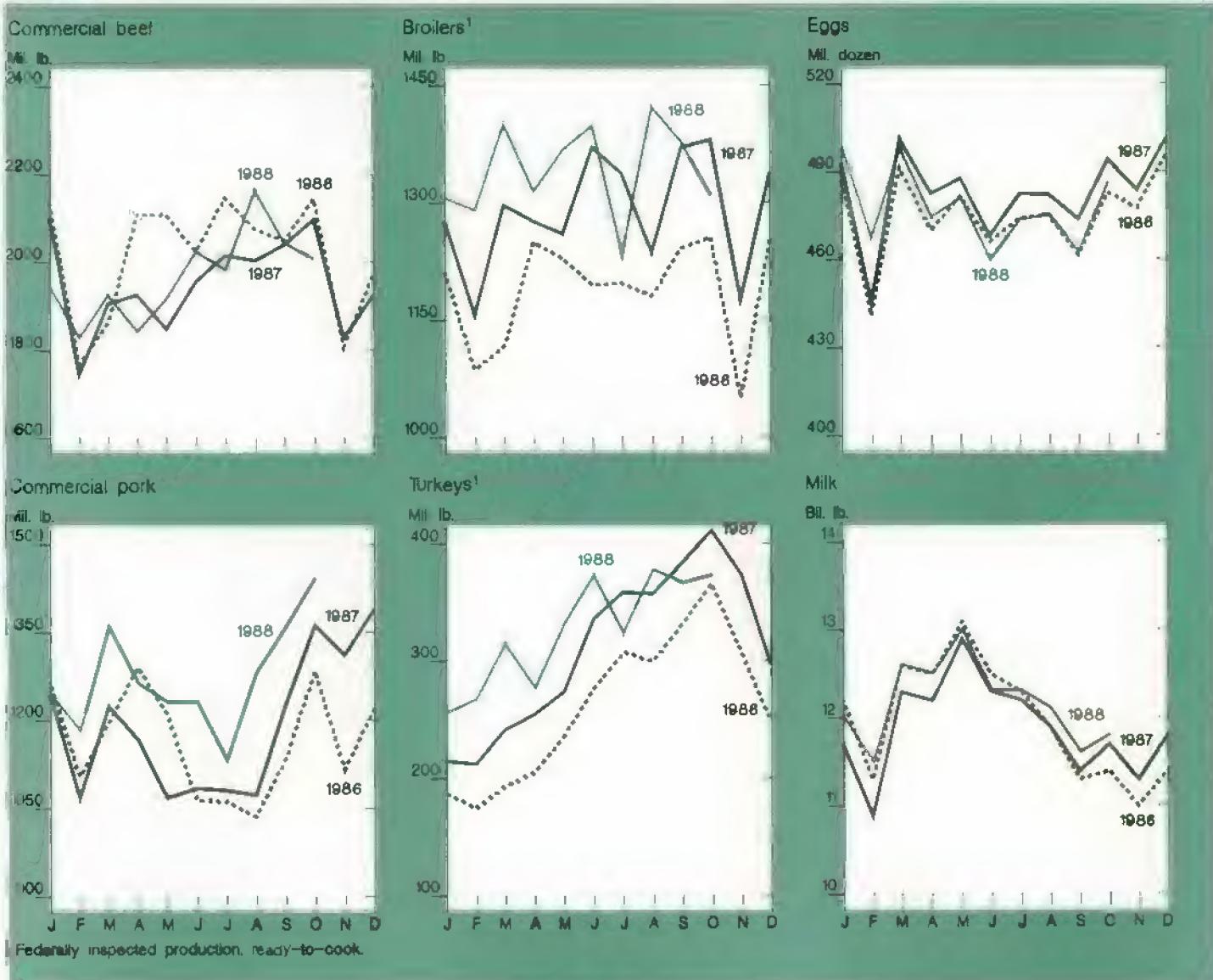
Ham and loin cuts stand to benefit most from higher incomes as consumers increase purchases of leaner, higher priced fresh meats and convenience packages, such as precooked, microwavable, or deli products. Demand for processed pork in breakfast foods could rise as more meals are consumed away from home.

Broiler production likely will increase. Turkey supplies should hold fairly steady. Changes in competing meat supplies may only minimally affect average hog and pork prices in 1989, but the influence on prices of specific pork cuts could be pronounced at certain times.

For example, demand for pork loins in the spring cookout season could be enhanced by reduced availability of fed beef. On the other hand, larger poultry supplies could shrink demand for processing pork in the summer.

Hog producers expanded inventories about 14 percent between mid-1986 and mid-1988 in response to positive net returns. Expansion slowed in mid-1988 as drought pushed feed costs substantially higher and hog supplies drove prices

Production of Livestock and Products



lower, resulting in returns to hog producers below breakeven in the last several months of 1988.

Production Costs To Rise in 1989

Production costs are expected to rise further in 1989, mostly because of increased feed costs. Although grain prices should decline in the second half if crop conditions are normal, average breakeven prices for hogs for the year could be at least \$5 per cwt higher than in 1988.

Since hog prices are expected to rise only slightly on average, returns to producers likely will decline. Returns

over all costs (including replacement costs) could be negative through most of the year. Consequently, breeding inventories could continue to decline in the first half of 1989.

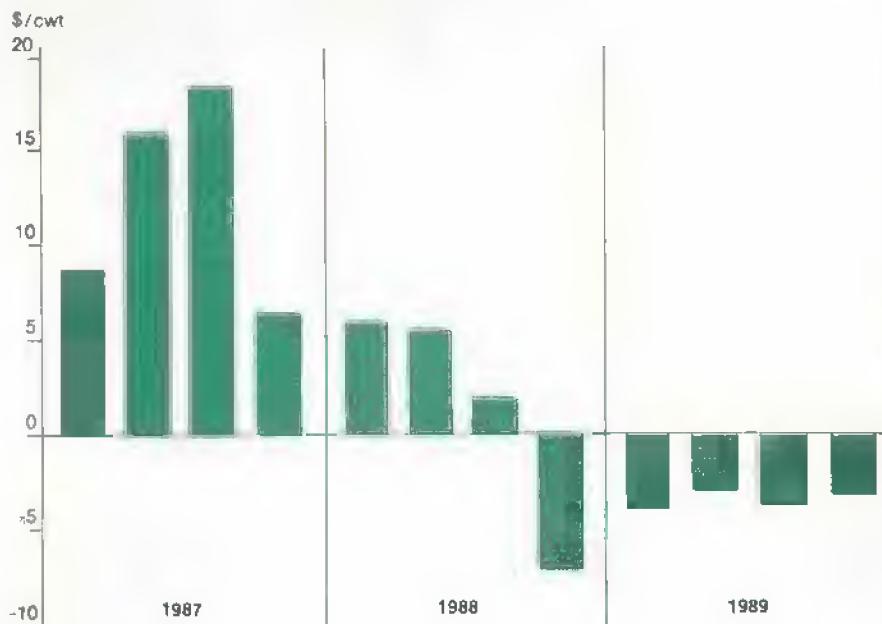
However, it is not likely that a major herd liquidation has begun. Liquidation in 1988 may have been concentrated among smaller producers, who generally have higher production costs. Larger producers, whose output tends to be more stable, may have maintained their herds.

The Disaster Assistance Act of 1988 enabled some producers to purchase feed at below-market prices, offsetting some

of the increase in feed costs. While returns over all costs could average below breakeven in 1989, returns over cash expenses likely will be positive and improve as the year progresses. Thus, incentives for large-scale liquidation may not develop, and hog inventories could stabilize.

Favorable crop conditions and a stable economy in 1989 likely would result in renewed expansion of hog inventories, possibly beginning in early 1990. Pork production thus may hold fairly steady through 1990, and then trend upward before reaching a major peak in the inventory cycle.

Hog Producers' Net Returns May Be Negative Throughout '89



Under such a scenario, hog prices could be expected to trend higher as breeding herds are enlarged, followed by a period of low prices as the expansion matures.

Output in First Half Likely Above a Year Earlier

Pork production is expected to drop below a year earlier in fourth-quarter 1989 because of herd liquidation in second-half 1988. Throughout the first half of 1989, however, production probably will continue above a year earlier.

During first-quarter 1989, commercial pork production may total about 3.9 billion pounds, up 3 percent from first-quarter 1988. Following a 4-percent increase in the June-August 1988 pig crop, commercial hog slaughter in the first quarter may rise almost 4 percent to just over 22 million head. However, weekly kills in February may drop substantially from the previous fall to near 1.6 million head.

Consequently, hog prices may show a strong seasonal rise this winter. From fall lows in the mid-\$30's per cwt, prices could peak in the middle to high \$40's before declining into the spring. Barrow and gilt prices likely will average in the low to middle \$40's per cwt over the first quarter, down from \$45 a year earlier.

Hog slaughter in second-quarter 1989 will be drawn largely from the September-November 1988 pig crop. Farrowing intentions for this period were up 5 percent from a year earlier, although actual farrowings may have been slightly lower. The number of pigs saved per litter probably was down from a year earlier because of reduced conception rates during the May-July breeding season.

Second-quarter 1989 hog slaughter is forecast to rise about 3 percent to around 21.5 million head. Dressed weights may average somewhat lighter than a year earlier, though, resulting in only a 2-percent rise in pork production.

Second-quarter barrow and gilt prices may average in the middle to high \$40's per cwt, compared with \$46 a year earlier. Smaller beef supplies could support fresh pork prices, partially offsetting the increase in pork production.

Hog prices may be close to 1988 levels through most of the summer, but could rise above a year earlier by September. Third-quarter prices are forecast in the middle to high \$40's per cwt, up from \$44 in 1988.

Third-quarter production may be about the same in 1988. Cold storage stocks, which grew at an above-average pace late in 1988, could again add significantly to total pork supplies in the third

quarter if accumulation remains high through the spring.

Producers may have begun to breed fewer hogs in the fall of 1988 in response to negative returns. This would cause a year-to-year decline in the spring 1989 pig crop. Accordingly, fourth-quarter 1989 hog slaughter and pork production are expected to decline 3-4 percent from a year earlier.

The seasonal rise in hog slaughter from summer to fall could be smaller than in 1988, causing a smaller seasonal decline in hog prices. A smaller price decline would tend to raise average barrow and gilt prices in both the third and fourth quarters.

Reduced hog marketings in the fourth quarter may narrow the spread between hog prices and carcass cutout values relative to 1988. Over the final quarter, average barrow and gilt prices may only slip to the mid-\$40's.

U.S. Pork Imports May Slip

The U.S. pork trade deficit is expected to widen moderately in 1989, adding slightly to domestic pork supplies. After rising sharply in the early 1980's, U.S. pork imports have held fairly steady. A slight decline is likely in 1989, largely because of the weakening value of the U.S. dollar.

Imports from Denmark and Eastern Europe may be unchanged. Product imports from Canada could decline, but more imports of live hogs from Canada may be somewhat offsetting.

Live hog imports are forecast to increase in 1989, for the second consecutive year. An approximate 50-percent cut in the countervailing duty deposit rate on hogs crossing the border from Canada is likely to encourage live imports, partly at the expense of dressed pork imports. Even so, the forecast for around 700,000 head in 1989 is well below the numbers imported prior to the imposition of the countervailing duty.

U.S. pork exports are forecast to decline in 1989. Exports rose sharply in 1988, with most of the increase going to Japan and Mexico. The U.S. share of the Japanese pork market widened largely because shipments from Taiwan, Japan's

primary supplier, contained sul-famethazine residues in excess of Japanese standards.

Taiwan voluntarily suspended pork exports to Japan in the spring of 1988, but shipments gradually resumed as the sul-famethazine problems were controlled. Taiwan is expected to recapture its share of the Japanese market in 1989, reducing the U.S. market share.

With the onset of the 1988 drought, deferred futures prices rose to substantial premiums over spot cash prices. These premiums persisted through the fall of 1988, encouraging storage of pork—primarily bellies—for later consumption.

Accumulation of freezer stocks was above normal in late 1988, and stocks on January 1, 1989, probably were above a year earlier. Stocks are typically drawn down over the summer. If accumulation remains rapid through the spring, however, cold storage stocks could add significantly to pork supplies, applying downward pressure to prices in the third quarter.

Retail pork prices are expected to increase in 1989 as the year progresses, rising from an early average around \$1.84 per pound to above \$1.90 in the fourth quarter. As with hog prices, the largest year-to-year increases are likely to occur in the fourth quarter. For all of 1989, retail pork prices are projected to rise 1 to 3 percent from 1988, but remain below the record levels of 1987. *[Kevin Bost (202) 786-1767]*

Sheep & Lambs

Prices for sheep and lambs tumbled in 1988 as commercial lamb production increased 5 percent from 1987 to over 325 million pounds. Slaughter lamb prices fell nearly \$20 per cwt to average near \$62 by yearend. Continued modest expansion in sheep inventories is likely in 1989, and production could increase 3 percent to 335 million pounds.

Prospects for seasonal price strength during the 1989 Easter-Passover holidays appear good, possibly pushing prices into the upper \$60's to low \$70's. However, slaughter lambs should trade near \$60 for the remainder of the year.

Returns above cash costs to stock ewe operators were close to breakeven in 1988, after averaging \$24 to \$28 per ewe during 1985-87. Further declines in net returns are expected in the coming year as production costs rise modestly and larger lamb supplies pressure prices lower.

The chance that profits could turn negative is not expected to affect producer expansion plans immediately. However, it could temper further increases into the 1990's. *[Steve Reed and Ron Gustafson (202) 786-1286]*

Poultry & Eggs

Broiler and turkey production are forecast to continue rising in 1989, based on expectations of positive net returns. Egg production is expected to keep declining as producers continue adjusting to weakening demand and negative net returns.

Broiler prices probably will decline slightly, while turkey and table egg prices rise. U.S. poultry and egg exports probably will fall below 1988.

Broiler Production To Increase 3-5 Percent

Broiler production is forecast to rise another 3-5 percent in 1989, following positive net returns since second-quarter 1988. Output in 1988 likely rose 4 percent from 1987, to more than 16 billion pounds.

Production costs for all poultry and egg producers are expected to be considerably higher in first-half 1989 than a year earlier because of higher feed costs. The increased feed costs in early 1989 probably will blunt the industry's tendency to escalate production following periods of higher net returns.

Most of the 1989 production increase will come during the second half. Broiler eggs in incubators during November 1988 and chick placements for slaughter in early 1989 indicate production will increase 2-3 percent at the beginning of the year. The size of the hatching egg flock, which is comprised largely of hens that lay broiler eggs, indicates similar increases.

The broiler hatchery supply flock, an indicator of broiler egg-laying hens in the future, shows a similar trend. A broiler hen is in prime production between 7 and 14 months of age. Pullets placed in October will reach laying age by May 1989. The number of pullets placed in the broiler hatchery supply flock that will be 7-14 months in May 1989 provides a rough estimate of the hatching egg flock. The estimated hatchery supply flock in May will be down 1 percent from a year earlier after being down as much as 7 percent in March.

Pullet placements are at best a directional indicator of future production because broiler producers can molt hens if they need a near-term increase in broiler eggs, or they can dispose of the eggs if a short-term decrease is warranted. Nevertheless, recent placements indicate that broiler producers intend to expand the flock during 1989.

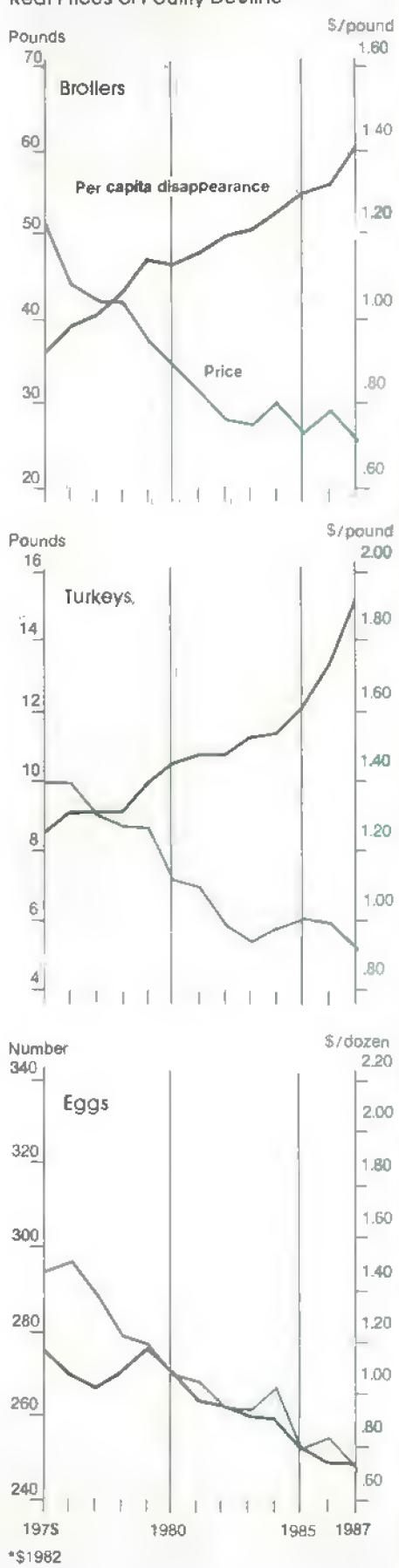
While broiler production continues to increase, liveweights rose only fractionally from a year earlier during the first 10 months of 1988. Complaints by retailers that the birds have too much fat and are heavier than desired perhaps have slowed liveweight increases.

Broiler prices in 1989 may be supported by decreases in domestic supplies of high-value beef and ground meat. Disappearance of red meat and poultry is expected to fall around 2 pounds per person in 1989, following 1988's record per capita consumption of about 220 pounds (retail basis).

Wholesale broiler prices in 1989 are likely to average below 1988. First-quarter prices probably will average 50-56 cents per pound, above the 45 cents during first-quarter 1988. However, prices in the second and third quarters are expected to average 53-59 cents per pound, compared with 56 and 66 cents during 1988. Prices probably will decline in the fourth quarter to 47-53 cents, as seasonal barbecuing and summer vacations end.

Last summer's high prices were affected by factors other than the drought. Retailers and restaurateurs featured chicken most of the season. Meanwhile, producers placed only 2-3 percent more broilers for summer slaughter, following negative returns during late 1987 and early 1988. Finally, hot weather slowed

Real Prices of Poultry Decline*



*\$1982

the birds' rates of gain and held down production during the height of summer demand.

Retail frying chicken prices probably will average lower in 1989 than in 1988. The tight supplies and heavy chicken promotion during summer 1988 are not likely to occur again in 1989.

World production of broilers is expected to increase around 4 percent in 1989, following a near 3-percent rise in 1988. The largest producers and their forecast share of output are the United States (34 percent), EC (19), Brazil (9), Soviet Union (8), and Japan (6).

U.S. broiler exports are expected to decline in 1989 to around 650-680 million pounds, about 7 percent below 1988. This would represent about 4 percent of 1989 U.S. production. Exports in 1988 likely fell 2-4 percent from the record 752 million pounds in 1987.

The continued export decline in 1989 will not be reversed unless the U.S. increases its Export Enhancement Program (EEP) bonuses, or the EC reduces its export subsidy. Stronger competition by Thailand and Brazil also may limit U.S. broiler exports. Japan and Hong Kong are expected to remain the largest markets for U.S. broiler meat.

Turkey Output Headed Up Again

Turkey production is expected to expand 2-4 percent in 1989, following increases of about 6 percent in 1988 and 17 percent in 1987. After year-to-year declines in the third and fourth quarters of 1988, output will begin increasing again early in 1989, although the biggest gains are expected in the second half.

After positive net returns in the third and fourth quarters in 1988, net returns likely will be negative in the first two quarters of 1989 because of high feed costs. Net returns likely will turn positive in the third and fourth quarters.

Cold storage stocks in 1989 are expected to follow their traditional buildup for consumption during the fourth quarter. Beginning stocks for 1989 are likely to be about 175 million pounds, similar to 1987, but 38 percent below the start of 1988. By the beginning of the fourth quarter, stocks will be up to about 5 percent below 1988.

Turkey stocks-to-use ratios for fourth-quarter 1989 will remain near the low 1988 levels. The low ratio will lend some support to prices, but not enough to raise them above fourth-quarter 1988.

Wholesale hen turkey prices in the East are projected to average 63-69 cents per pound in 1989, up from the 61-62 cents estimated for 1988. Prices probably will fall seasonally in the first quarter to 57-63 cents, substantially above the 49 cents of first-quarter 1988.

Second-quarter prices likely will be 55-61 cents, above 1988's 51. However, prices in second-half 1989 are anticipated to rise seasonally and average near the year-earlier level.

Retail Prices of Turkey Will Be Higher

Retail turkey prices for all of 1989 are expected to rise along with wholesale prices. But 1989 Thanksgiving specials may be more attractive than in 1988 because of production increases during the second half.

Per capita turkey consumption in 1989 will continue to be more evenly distributed through the year. Although expected fourth-quarter disappearance, near 6 pounds, will account for nearly 36 percent of the annual total, the holiday proportion has declined steadily from 44 percent in 1978. Total per capita disappearance in 1989 may be little changed from the 16.6-16.8 pounds estimated for 1988.

World production of turkey is forecast to rise 2 percent in 1989 following an estimated 4-percent increase in 1988. The U.S. is expected to continue as the leading producer, followed by the EC, Canada, and the USSR.

Higher U.S. prices and uncertainties in major markets cloud the outlook for U.S. turkey exports in 1989. Exports are expected to fall about a fourth, after growing roughly 45-50 percent in 1988 from 1987's 33 million pounds. Exports are likely to total slightly less than 1 percent of U.S. production.

Egypt, West Germany, and Mexico were leading importers in 1988. Egypt, which is facing meat shortages, has increased imports eleven-fold from 1987. West Germany recently reclassified seasoned

turkey into a higher EC duty category, temporarily pricing U.S. product out of the market.

Egg Production Declining

Egg production is expected to fall about 2 percent in 1989, following more than a year and a half of negative net returns. Producers faced negative returns during most of 1987 and began reducing production in mid-1988. Output decreased 1 percent for all of 1988.

After a short respite in third-quarter 1988, net returns are expected to remain negative during the first half of 1989 because of higher feed costs and seasonally lower prices. With egg prices rebounding in second-half 1989, and if feed costs fall, returns could turn positive.

Negative net returns are reflected in table-egg producers' plans. The table-egg flock is down 3 percent from a year earlier. The egg-type chick hatch has been below a year earlier since December 1987, indicating producer pessimism. Some recent monthly hatch numbers have been down more than 20 percent from a year earlier.

With the chick hatch low, producers will have considerable difficulty maintaining the flock, even through molting, if prices rise unexpectedly. As the percent of flock that has completed a molt continues to rise, the rate of lay is expected to slow. Egg production probably will continue declining through 1989.

Retail prices in 1989 are expected to reach their highest since 1984. Wholesale prices in New York for the year are forecast to average 65-71 cents per dozen, up about 6 cents from 1988. First-quarter prices, at 59-65 cents, will be above the 55 cents of 1988 as production continues to decrease. Prices are expected to average 57-63 cents in the second quarter, up from 53 cents a year earlier.

Prices likely will begin rising seasonally in the second half, reaching 69-75 cents in the third quarter and 74-80 in the fourth as the holiday baking season begins. These prices compare with 73 and 64-65 cents in the same quarters of 1988.

Consumption may decline faster than trend in 1989, to around 235 eggs per person, after falling to 242-243 in 1988. The continued decline reflects changing lifestyles. Egg producers have yet to market a product that will compete with easy-to-fix breakfast items such as sweet rolls and instant cereals.

Health concerns related to cholesterol content may be affecting egg consumption. At the same time, egg producers have spent little money on changing the image of eggs or convincing consumers that eggs are not just for breakfast. Recent developments that may be positive for the egg industry include the introduction of low-cholesterol eggs and a number of processed egg products, such as fat substitutes, that are nearly noncaloric.

World egg production is likely to rise 2 percent in 1989 while production in the U.S. continues to fall. Production in the EC may decline slightly, while output in China, the world's largest producer, probably will increase 8 percent. The Soviet Union, the second largest producer, likely will boost production 2 percent.

With prices higher, U.S. egg exports are anticipated to fall 20-25 percent in 1989, to near 110 million dozen. The decline will follow an estimated 22-26 percent rise in 1988. U.S. exports in 1989 are expected to account for about 2 percent of domestic production.

Current inflation-control programs likely made Mexico the largest importer of U.S. table eggs in 1988, surpassing Hong Kong and Iraq. How long Mexico will continue to reduce trade restrictions and encourage poultry and egg imports will strongly affect U.S. exports. However, Japan is expected to remain the largest U.S. customer in 1989. *[Mark Weimar (202) 786-1710]*

Dairy

Milk production in early 1989 will be near a year earlier. If feed prices decline next summer, output is likely to strengthen. Milk cow numbers probably will ease as some producers leave dairy-ing and others delay expansion. Low milk-feed price ratios may dampen increases in milk per cow.

While many milk producers have lowered nonfeed cash costs, milk price reductions have hurt those who were less successful. Key uncertainties revolve around the quantity of milk produced by the latter group and how quickly they might exit from production.

Expansion has been cautious, with producers focusing on reducing debt loads and lowering cash costs rather than on new investments.

Concentrate ration values probably will continue to rise in early 1989, primarily because of a widening spread between ingredient prices and ration values. First-half values may be \$1.25-\$1.75 per cwt higher than a year earlier. If 1989 crop yields are normal, concentrate values will decline later in the year. Even so, average concentrate values probably will rise 8-10 percent, about the same as in 1988.

Returns over concentrate costs in 1989 probably will be similar to 1988. However, the milk-feed price ratio may drop to its lowest since the mid-1970's.

Slaughter cow prices are expected to continue strong in 1989, reflecting declines in nonfed slaughter. The ratio of replacement heifers to milk cows is in a relatively neutral range—below the mid-1980's but above earlier years. Alternatives to dairying show no particular direction: they have improved since the early 1980's, but are nevertheless largely lackluster.

Milk production in 1988 rose about 2 percent from 1987. The record output was due to an almost 3-percent increase in milk per cow. Cow numbers averaged 10.2 million, down 1 percent from 1987 and a record low.

Milk production posted strong gains early in 1988, but increases eased by midyear in response to the January 1 cut in support prices. Cow numbers slipped 79,000 head in the 21 major producing States during the first half of the year, probably because of the closing of dairy operations unable to withstand the reduced returns. Output per cow retreated from the extraordinary gains in late 1987-early 1988 to trend levels.

With last summer's drought, emphasis shifted from the support price cut to feed

costs. During April-September, the average value of concentrate ration rose about \$1.25 per cwt. Alfalfa hay prices hit record highs. Farmers in drought areas were forced to purchase forage. Milk-feed price relationships were the lowest since the 1970's.

Milk production did not respond quickly to the rise in feed costs. Milk per cow posted a 2-percent increase during the summer, and a similar gain in the third quarter.

Commercial Use Headed Higher

Commercial use of dairy products probably will rise 1-3 percent in 1989, with gains in both milkfat and skim solids. The economy is likely to expand, and a modest increase in retail dairy prices probably will not blunt the recent sales recovery. Although prospects for commercial exports are less certain, they may claim most of the domestic surplus of nonfat dry milk. Butter exports are unlikely, but moderate cheese exports are possible.

Commercial use for all of 1988 surpassed 1987's 136 billion pounds (milk equivalent) for a new record. Sales of cheese, particularly American varieties, posted large gains. Fluid milk sales likely were just above a year earlier. Commercial use of butter probably fell slightly. Commercial disappearance of nonfat dry milk was the greatest in a decade.

Relative prices for dairy products were favorable in 1988. Domestic use of products based on whole milk or skim milk generally increased. Growth in sales of skim solids accelerated, in part because of the lower support purchase prices for nonfat dry milk since 1983. Export demand for nonfat dry milk became important after mid-1988, when rising international prices reached U.S. levels.

Commercial use of cream-based products declined during late 1987 and early 1988. However, use picked up in late 1988.

Commercial stocks of dairy products on October 1 were equivalent to only 4.7 billion pounds of milk, down from 5.4 billion a year earlier and the second lowest on that date since 1973. Although butter stocks were adequate, American cheese

holdings were the lowest in three decades. Last spring, cheese makers continued to sell to the CCC rather than build stocks.

Cheese stocks proved inadequate for the tighter skim milk market in 1988 and were a major contributor to sharp price increases during the second half of the year. October 1 manufacturers' stocks of nonfat dry milk also were relatively low. By yearend, American cheese stocks were stretched thin.

October 1 Government holdings totaled 4.9 billion pounds, up slightly from a year before. Although butter stocks were sizable, stocks of cheese and nonfat dry milk were small. The cheese and nonfat stocks had been reserved for domestic donation use.

Weaker milk production, a growing domestic market, stock rebuilding, and commercial exports probably will mean Government purchases of cheese and nonfat dry milk will be small during early 1989. Butter will be in the weakest position and significant purchases of it are likely. Total purchases in 1989 are expected to be 5-7 billion pounds, milk equivalent, consisting mostly of butter. If the export market stays strong, Government purchases of nonfat dry milk may be tiny.

CCC purchases in 1988 totaled an estimated 8-9 billion pounds, milk equivalent, up from 6.7 billion in 1987. Butter purchases were about two-thirds larger. Cheese and nonfat dry milk purchases effectively ceased last summer as markets tightened and wholesale prices rose.

Overall, CCC cheese removals in 1988 declined moderately, while nonfat dry milk purchases likely fell by half. Net removals of these products would have fallen more if CCC stocks had been available for sale back to the industry during the second half.

For once, there is little uncertainty about the new year's support price. Because of drought relief legislation, there was no January 1 price cut and the support price will be raised 50 cents for the April-June quarter.

First-Half Prices Will Be Above a Year Earlier

Considerable uncertainty, however, surrounds market prices, which will drop seasonally in early 1989. Prices will be above a year earlier during the first half. If conditions ease during the second half, the seasonal rise probably will not match 1988's. Farmers probably will receive an average 10-50 cents more per cwt in 1989. But prices may be volatile, in part because of uncertain export prospects.

Early 1988 prices fell following the 50-cent reduction in the support price on January 1. Although wholesale prices reached support levels quickly, manufacturing milk prices did not reach support until April. Farm milk prices ran about 60 cents below a year earlier during the first half of 1988, even though the support price was 75 cents less.

Under these conditions, relatively little tightening in supplies was needed to start prices rising. Cheese and nonfat dry milk prices rose steadily through summer and early autumn, increasing 15-20 percent. Without adequate stocks (particularly of cheese), prices had to rise enough to ration production. Butter prices managed a small rise last summer, but were hard pressed to maintain those gains in the autumn.

The Minnesota-Wisconsin (M-W) price of manufacturing grade milk rose from a May-June low of \$10.33 per cwt to a November peak of \$12.23. This was the largest seasonal rise since 1975. For all of 1988, the average price of all milk likely fell 30-40 cents per cwt from 1987's \$12.54.

Retail dairy prices probably will rise 2-4 percent in 1989. During 1988, prices averaged about 2 percent higher than a year earlier; this increase represented only half the rise in the CPI for all items. [James J. Miller (202) 786-1284]

Wheat

The world wheat situation changed dramatically in 1988, from overproduction to concerns about short supplies. Record disappearance will be facilitated by increased foreign production and stock drawdowns. The 1989 wheat crop

will begin with the lowest stocks-to-use ratio since the early 1970's.

The focus of this year's situation has been on drought-reduced crops in North America. The 1988 drought hit the Northern Plains the hardest, reducing the spring and durum crops to about half the 1987 volume, the lowest since the early 1960's.

Hard red winter production declined to the lowest in a decade because of greater enrollment in the Conservation Reserve Program, unfavorable weather, and disease conditions prior to harvest.

Nevertheless, certain classes of U.S. wheat were virtually unaffected by the drought. Record yields and increased acreage boosted the soft red winter crop about 36 percent above 1987, although the harvest remained well below those in the early 1980's. The white wheat crop was nearly unchanged from 1987.

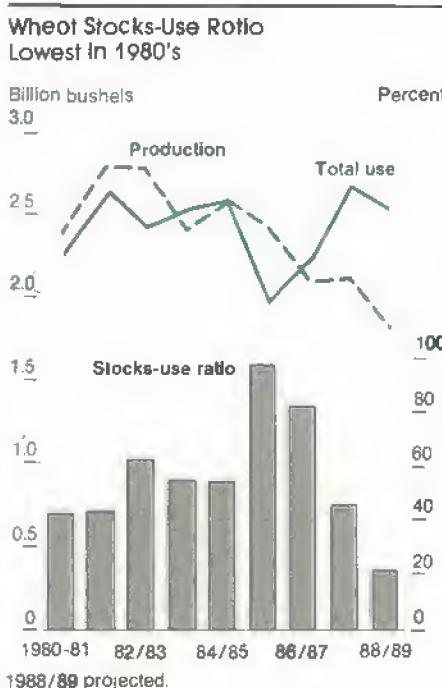
Total disappearance of U.S. wheat in 1988/89 is forecast to be the fourth largest ever, despite a small carryin and low production. Domestic use will continue at around 1.1 billion bushels, about the same as for the previous 5 years.

Food use of wheat has shown a steady increase and likely will rise again. Feed and residual use, which has fluctuated between 280 and 400 million bushels in the past 5 years, probably will fall near the lower end of the range.

U.S. Exports Declining, But Export Share Is Expanding

U.S. wheat exports are expected to decline about 9 percent to 1,450 million bushels in 1988/89. However, the U.S. share of world exports may rise to about 43 percent, the highest since 1981/82. The increase is due to lower world trade, U.S. export promotion programs, and smaller exportable supplies in most major exporting countries.

The season average market price for wheat is forecast between \$3.60 and \$3.75 a bushel, up from \$2.57 in 1987/88. The smallest supply in a decade and continued large disappearance will reduce ending stocks on May 31 to the least since the mid-1970's. These factors likely will result in the lowest stocks-to-use ratio since 1973/74.



Because carryin stocks on June 1 will be below 1 billion bushels, the Secretary of Agriculture was required to announce a 1989 Acreage Reduction Program no greater than 20 percent. The ARP is set at 10 percent, down from 27.5 in 1988.

Increased plantings should minimize any long-term damage caused by the drought, by ensuring adequate supplies and indicating that the U.S. intends to remain competitive in world markets.

With the lower ARP and high prices at planting time, U.S. harvested acres are expected to increase by 13 to 15 million. Using trend yields of 38 bushels per acre would give a production increase of around 40 percent in 1989/90. With forecast carryin of a little more than 530 million bushels, total supplies may be about the same as in 1988.

Given the evidence of the past 5 years and 1988/89 forecasts, domestic use may show little change from 1988/89. Thus, exports will again be a major factor determining ending stocks and prices.

Stocks Down to Pipeline Levels

In the international wheat market, 1988/89 will be a memorable year. After years of oversupply, stocks in most countries are likely to be drawn down to pipeline levels. Policymakers have had to switch their focus, at least in the short

run, from how to handle surpluses to how to allocate scarce wheat resources among many demands.

The market has responded by sharply bidding up prices. For example, U.S. hard red winter (f.o.b. Gulf ports) recently traded at \$165 per ton, around \$50 above a year earlier.

World wheat area declined again in 1988, as it has in 6 of the past 7 years. U.S. wheat farmers held large areas out of production in compliance with Government programs. In addition, a period of declining prices and uncertainty about the future worked to limit wheat plantings in many other countries. Bad weather reduced yields in several major growing areas.

Overshadowing the total world wheat outturn are results in the world's major exporting countries (including the U.S.). Production among major exporters dropped over 15 million tons.

Normally, a decline of this size would be of little concern, as stocks usually are adequate to meet any sudden surge in import demand. But over the last 2 years, large drawdowns dramatically reduced the stock cushion.

At the same time, world wheat use in 1988/89 is projected at a record 535 million tons, despite sharply higher prices. Since the mid-1970's, world food use of wheat has grown about 3 percent a year. Although wheat has been an important feed ingredient in the past few years, higher prices in 1988/89 should reduce the feed wheat trade.

World wheat trade in 1988/89 is projected at around 94 million tons, almost 12 million below the near-record of a year earlier. Most of the decline will stem from smaller imports by the USSR, China, Brazil, Korea, Eastern Europe, and some Middle Eastern countries.

The reduced imports have been prompted by larger domestic wheat supplies, a switch from feed wheat to coarse grains, and a slowdown in imports following heavy wheat stockpiling last season.

In world wheat stocks, large drawdowns over the past 2 years have erased what took 5 years to accumulate. Stocks are expected to fall to 113 million tons at the

end of the 1988/89 marketing year, down from 175 million at the end of 1986/87.

Use Continues Strong

World wheat use has exceeded 500 million tons for 3 consecutive years, averaging 531 million. In contrast, only in 1986/87 did production approach 530 million tons. At the end of 1988/89, stocks as a percent of use likely will total only 21 percent—the lowest ratio since the early 1970's.

Because of stronger prices, higher domestic guarantees to producers, and less restrictive area reduction programs, world wheat area in 1989 probably will show the first upturn since 1984. Increases may be tempered, however, by strong prices for competing crops and the typical time lag in gearing up for wheat production.

World harvested area could total 230-232 million hectares, not much different from the 1982-86 average, but 5 to 6 percent above 1988.

Canadian wheat area is expected to rise in 1989/90 in response to low stocks and higher world prices. Australia's area is not forecast to change appreciably, though, because of an expectation of lower world wheat prices in early 1990 and expected high prices for Australian beef and wool, which compete directly with wheat for land.

Similarly, the EC's wheat area probably will not change much, despite recent reforms in the Common Agricultural Policy designed to slow the increase in production. Argentine producers may expand plantings, depending on wheat's profitability relative to other crops and the willingness of producers to double-crop soybeans and wheat.

If yields continue their upward trend, the world should easily harvest a 1989 crop in excess of 500 million tons. In the main, weather will dictate how close it comes to the record 530-million-ton harvest of 1986.

If world wheat prices in 1989/90 are below levels witnessed in 1988/89, and economic conditions continue favorable, utilization could approach 530 million tons. With consumption expected to be close to production, there will be little

buildup of stocks from the larger 1989/90 crops. It appears that since the early 1980's there has been an underlying 2-3 percent annual increase in wheat use as a food grain. However, high wheat prices relative to corn and other feed ingredients could continue to dampen the feed use of wheat.

What about global wheat trade? Since world production is unlikely to increase to the level of use, world wheat trade in 1989/90 is likely to exceed 1988/89's forecast 94 million tons. *(Bruce R. Weber (202) 447-4146)*

Rice

Despite prospects for near-record global production in 1988/89, supplies could again be tight. An expected resurgence in import demand is likely to preclude any significant buildup in stocks.

World rice production for 1988/89 is forecast to rise 17.4 million tons from last season to 471 million tons (rough basis). The four major exporting countries—Thailand, Burma, Pakistan, and the United States—are expected to account for 35 percent of the increase.

Despite higher production, only Thailand and Burma are likely to have significantly larger ending stocks in 1988/89. But Thailand's stocks will fall well below previous years.

Global Trade To Increase

World rice trade (milled basis) is estimated at 12.0 million tons in 1989, 0.5 million above 1988. Thailand and the U.S., with larger exportable supplies, are forecast to increase exports, along with Burma, China, and Pakistan.

Indonesia and India, although striving for self-sufficiency in rice, are expected to be net importers. Depleted stocks likely will force Indonesia, which has not bought substantial amounts since 1984, to import 500,000-600,000 tons. India, which suffered a very poor 1987 crop, likely will continue importing well into 1989.

Global utilization, after dropping 2 percent last season, is forecast to expand more than 5 million tons in 1988/89. Last season's decline was the first since 1972/73; it resulted from foreign ex-

change difficulties, high world rice prices, tight supplies, and the substitution of lower priced commodities, such as wheat, for rice. The forecast indicates a move back to rice.

Strengthening grain prices have further narrowed the gap between the prices of rice and competing grains. Strong global demand and reduced U.S. stocks in 1988/89 point to continued upward pressure on grain export prices, which could make rice an attractive alternative.

The 1988 U.S. rice crop, at 158.4 million cwt, was 24 percent above a year earlier and the largest since 1981. However, carryin was off sharply, so the total supply for 1988/89 is up only 6 percent, to 193 million cwt.

Although the increased supply suggests lower prices, virtually all of this year's supply is privately held. Therefore, growers may have the leverage to get higher prices than in prior years.

Lower acreage reduction requirements and higher prices prompted larger plantings and increased production in 1988. Producers were allowed to plant 75 percent of their rice base, up 10 percentage points from the previous 2 years.

Some producers who in prior years had further reduced plantings under the 50/92 program planted more of their permitted acreage in 1988. Enrollment in the 1988 program and planting decisions were made when farm prices were averaging \$8.59 per cwt, the highest since January 1984.

Expansion in U.S. Output Will Be Mostly Long Grain

Domestic cash prices for long grain rice were especially high in early 1988. The greatest declines in 50/92 enrollment—as well as the largest production increases—were in long grain producing areas. As a result, long grain production accounts for 90 percent of the rise in U.S. output from 1987.

With domestic and export use expected almost to match the increase in supply this season, ending stocks are forecast at 33.8 million cwt, only slightly above the carryin of 31.4 million. The ending stocks-to-use ratio may be unchanged from a year earlier.

USDA projections of domestic and export use are based in part on the assumption that U.S. farm prices for 1988/89 will average about \$1 per cwt above world prices. While a \$1 premium is acceptable for some domestic and export sales, it makes U.S. rice uncompetitive in most export markets.

Roughly 40 percent of U.S. export sales occur under P.L. 480 financing, GSM credit sales, or EEP sales, and for these markets, some domestic premium can be paid. It is the other 60 percent of projected sales that are at risk if the domestic premium remains too great.

The domestic premium averaged about 75 cents during the first few months of the marketing year. However, with Thailand likely harvesting a record crop, competitor prices probably will weaken into 1989. Will lower world prices reduce the U.S. premium? If producers hold out for the premiums received this past marketing year, forecast 1988/89 U.S. exports may not be realized. [Bruce R. Weber (202) 447-3391]

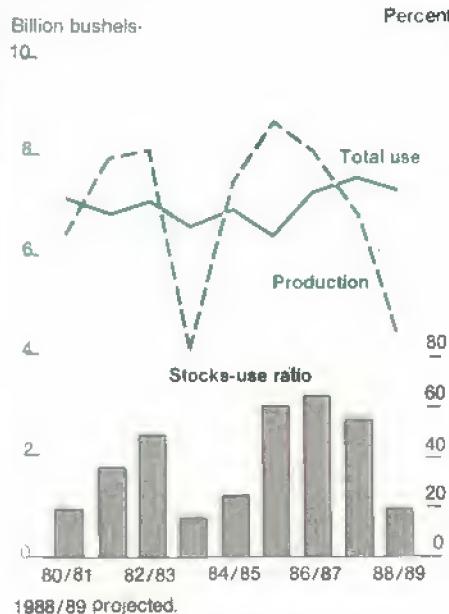
Feed Grains

The drought of 1988 is by far the most significant factor in the current feed grain situation. The 1988 harvest of the four feed grains (corn, sorghum, barley, and oats) was 141.7 million metric tons, down 34 percent from a year earlier and the lowest since the drought- and PIK-reduced crop of 1983. Barley and oats suffered the greatest damage, sorghum the least.

Area planted to feed grains in 1988 was down about 5 percent from the previous year, and harvested area declined around 10 percent. Overall, yields fell 27 percent to 1.8 tons per acre. With a 12-percent drop in carryin stocks, total feed grain supplies for 1988/89 are down 25 percent from the preceding season.

The drop in availability is expected to lead to a 60-percent decline in 1988/89 carryout stocks, since total use is forecast to fall only 4 percent. Most of the adjustment is expected in feed and residual use, which is forecast down 6-7 percent.

Despite Plummet In Production, Corn Use Is Level



Corn Supplies Will Tighten

Corn is about 82 percent of the total feed grain supply. With yields down 31 percent and harvested area down 4, corn production is estimated 34 percent below 1988, at less than 4.7 billion bushels. This is the lowest since 1983.

The 1988/89 corn supply, at 8.9 billion bushels, is down 25 percent from last season. Despite tight supplies, total use is expected to decline only marginally, with exports increasing 2-3 percent.

The largest decline in disappearance will most likely come in the feed and residual category. Following 2 consecutive years of record feed and residual disappearance, feed use of corn is forecast down about 5 percent to 4.5 billion bushels, mainly because of high corn prices.

The number of grain-consuming animal units (GCAU's) is expected to decline only marginally in 1988/89 from around 76 million last season. This would suggest only a slight dip in feed use. However, past years have shown that while GCAU's remain relatively stable, feed prices can rise or fall sharply.

The sharp price increase in 1988/89 may indicate a greater decline in feed use than currently forecast. Two factors, however, may mitigate feed and residual

declines. Emergency feed assistance will encourage livestock feeding beyond what otherwise might have occurred. Also, low grain prices in the past 2 years may help carry livestock producers through a year of high prices.

Food, seed, and industrial (FSI) use for 1988/89 is forecast down 1 percent from 1987/88, to 1.2 billion bushels. Although production of high fructose corn syrup (HFCS) likely will continue to increase moderately, high corn prices and relatively low petroleum prices are projected to reduce demand for corn for ethanol production.

In contrast, FSI corn use in 1987/88 was up 3 percent from a year earlier. HFCS production provided most of the growth, while corn use for seed or alcohol production was relatively flat. Ethanol sales remained sluggish.

U.S. corn exports are expected to rise for the third straight year despite the smaller supplies and higher prices forecast for 1988/89. At nearly 1.8 billion bushels, exports are projected up more than 2 percent from a year earlier. Nevertheless, they will remain well below the record 2.42 billion bushels of 1979/80.

With supplies down sharply and demand only moderately lower, carryout stocks of corn at the close of the 1988/89 marketing year are expected to fall by two-thirds, to 1.4 billion bushels. This would leave a stocks-to-use ratio of 19 percent.

Although not particularly tight by historical standards, this ratio is drastically lower than in recent years. The ratio was only 15 percent in 1983/84, the last nationwide drought year.

The 1988/89 average farm price for corn is forecast between \$2.40 and \$2.80 per bushel. During 1987/88, the farm price averaged \$1.94, which was higher than any monthly price during the crop year through April. The average price jumped 47 cents during June, as dry weather fueled concerns about crop prospects, although the average has declined each month since \$2.72 per bushel was recorded for July.

Coarse Grain Trade Expected To Grow

World coarse grain output in 1988/89 is forecast at 713 million metric tons, down 10 percent from a year earlier. Foreign coarse grain production, forecast at 571 million tons, may be down only 1 percent.

Drought reduced the Canadian crop 24 percent, and corn production in China is estimated down 6 percent.

Argentine production is forecast down 5 percent. Although high world corn prices typically would lead to expanded Argentine plantings, soybeans may have crowded out an increase in corn area. Also, hot, dry weather has reduced potential plantings. The EC has an estimated 7-percent increase in production.

World coarse grain trade is expected to rise around 8 percent to almost 90 million tons in 1988/89. Two factors are critical. First, Soviet coarse grain production is estimated down 14 percent, to 98 million tons. Second, high prices and low availability of wheat are expected to curtail trade in feed-quality wheat.

1989 Corn Crop Forecast Sharply Higher

Feed grain acreage is likely to increase in 1989 as idling requirements decline. The 1989 feed grain program features a 10-percent acreage reduction program (ARP) and no paid land diversion (PLD), compared with a 20-percent ARP and a 10-percent PLD in 1988.

Although farmer participation in the voluntary program and national crop acreage base adjustments will affect the outcome, the program changes could add 8-10 million acres of corn plantings in 1989.

This could be lowered 1-2 million acres if farmers take advantage of program options that allow oilseed or oats plantings. However, given a return to normal weather, the percentage harvested for grain will rebound from the drought-reduced 1988 level. Thus, area harvested for corn may be 67-69 million acres.

Many estimates of 1989 corn yields range from 110 to 115 bushels per acre, although these forecasts may be weight-
ing the 1988 disaster and potential

weather problems a bit too heavily. If weather cooperates next year, yields of 120 bushels per acre are not out of the question, considering long-term trend increases of more than 2 bushels per year. Thus, the 1989 crop could be between 7.7 and 8.3 billion bushels.

If 1989 production is at the low end of the range, carryout stocks could increase slightly if use in 1989/90 about equals this season. Even a 200-million-bushel increase in use, however, would leave carryout stocks only about the same as carryin.

The annual average farm price likely would fall in this situation, but probably stay well above 1987/88. If 1989 production is on the high end of the range, stockbuilding likely would resume and farm prices would fall further toward the loan rate of \$1.65 per bushel.

If yields return to normal, 1989/90 production of barley, oats, and sorghum also is likely to rebound. Stocks of barley and oats would tend to build modestly if production returns to normal, and prices probably will fall.

Grain sorghum production is likely to rebound in 1989/90 if yields return to normal, although use may continue to exceed production, leading to the third consecutive reduction of surplus carryout. Price will likely continue to be pegged to roughly 90 percent of corn prices. [Dave Hull (202) 447-6757]

Oilseeds

The U.S. oilseeds outlook is for markedly lower supplies and tighter stocks, with production 19 percent below 1987/88. The 1988 soybean crop declined 21 percent from the year before, and given last season's drawdown in stocks, soybean supplies are down 23 percent.

Cottonseed and peanut supplies are good, but the sunflowerseed crop was only about half the 1987 harvest and only about a fourth of the average crop at the beginning of the decade.

Despite the sharp reduction in U.S. supplies, there has been no panic in the markets. Export sales are down, except for soybean meal. Prices are higher than

a year ago, although they spiked early in the summer. The U.S. soybean crop is still important to the world, but is not nearly as significant as it was 10 years ago.

U.S. Exports To Decline While South American Shipments Rise

An expected big gain in the South American soybean crop implies that the sharp reduction in U.S. stocks will have a small impact on world protein meal and vegetable oil markets in 1989. Changes in world output are expected to be small; world soybean production and oilseed production for 1988/89 are forecast to be down only 9 and 3 percent, respectively.

While the U.S. soybean crop is down a fifth, world protein meal consumption will be down only about 1 percent, and a near-normal increase of 3.4 percent in world vegetable oil use is likely.

South American soybean yields are not yet certain, however, and production may turn out lower than expected. Markets will be highly sensitive to weather, which could have a large impact not only on the South American crop, but also on the 1989 crops in the Northern Hemisphere.

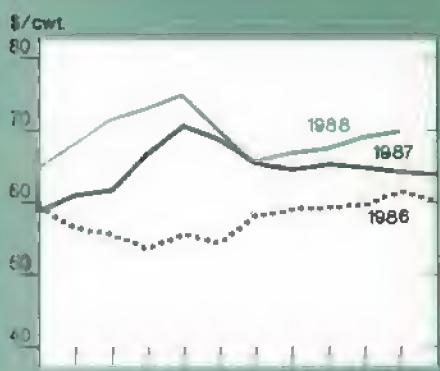
With most of this season's production shortfall occurring in soybeans, world protein meal markets will react more strongly than vegetable oil markets. Soybean meal prices may average about 15 percent higher than in 1987/88, while soybean oil prices may do well to equal last season's average.

World consumption of soybean meal may be down about 2.0 million tons in 1988/89, with the decrease fairly evenly split between the United States and the EC, where consumption appears to be more sensitive to prices.

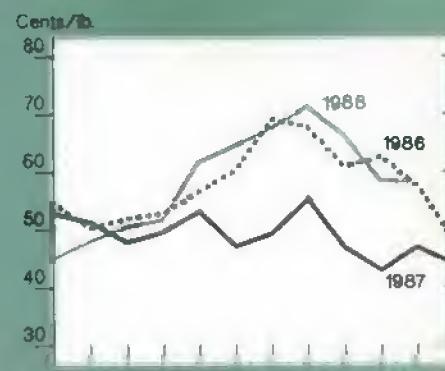
U.S. exports of soybeans and products are forecast down about 30 percent in 1988/89, but the drop will be nearly offset by increases from South America. As a result, world trade in soybeans and products may decline only about 4 percent. The U.S. share of world trade in soybeans and products could fall to 35 percent.

Commodity Market Prices

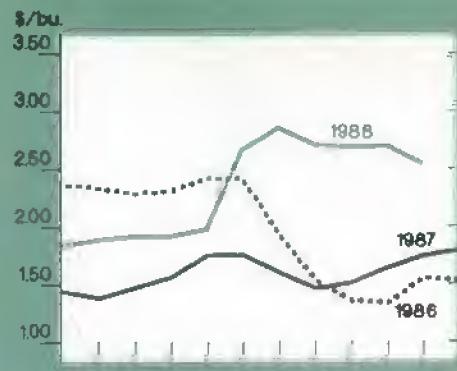
Choice steers, Omaha



Broilers, 12-city average



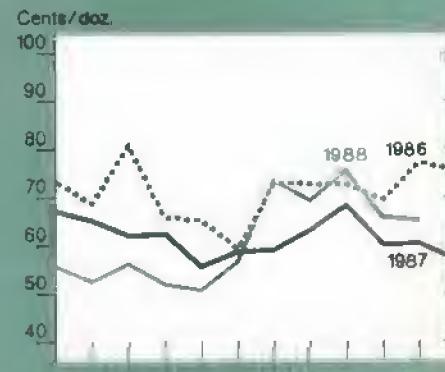
Corn, Chicago³



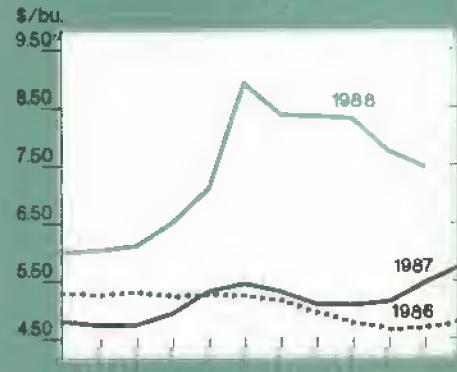
Feeder cattle, Kansas City¹



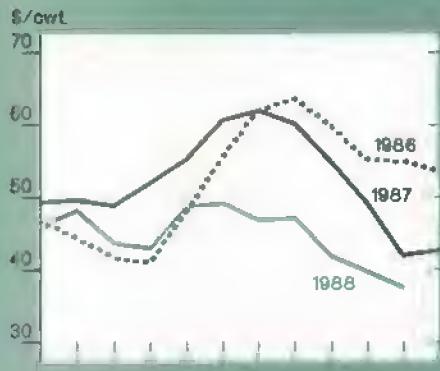
Eggs, New York²



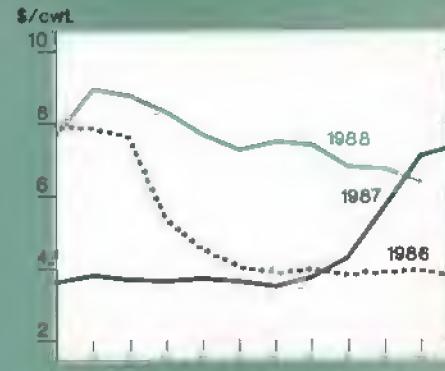
Soybeans, Chicago⁴



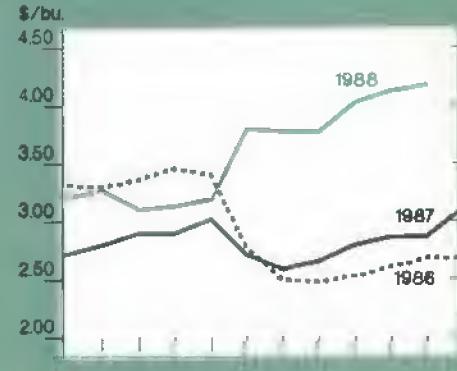
Barrows and gilts, 7 markets



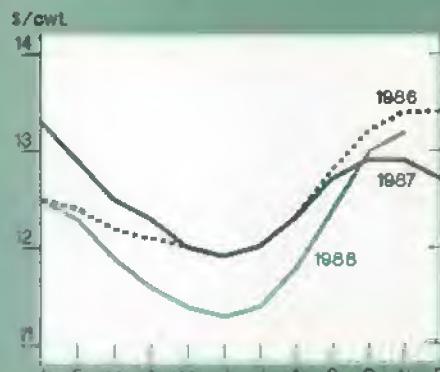
Rice (rough), SW Louisiana



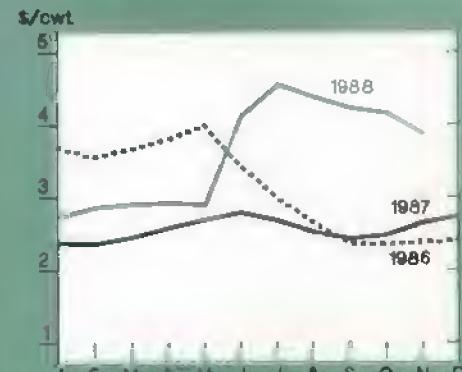
Wheat, Kansas City⁵



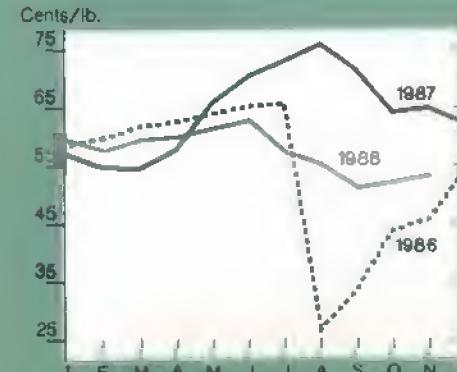
All milk



Sorghum, Kansas City



Cotton, average spot market



¹600-700 lbs., medium no. 2

²

Grade A large

³No. 1 yellow

⁴No. 2 yellow

⁵No. 1 HRW

Soybean Trade, Crush, & Stocks

	1979/80	1987/88	1988/89
	Million metric tons		
EXPORTS			
U.S.	23.8	21.8	15.4
Competitors 1/	3.9	5.2	8.0
World 2/	28.0	28.6	25.3
SELECTED IMPORTERS			
EC 3/	15.3	13.0	11.8
Japan	4.2	4.9	4.8
Taiwan	0.9	1.9	1.8
USSR	1.1	1.5	1.5
Mexico	0.8	1.0	1.1
Korea	0.4	1.2	1.2
CRUSH			
U.S.	30.6	32.0	28.0
EC	15.5	12.9	11.6
Japan	3.5	4.0	3.9
Brazil	10.6	12.6	15.0
Argentina	0.7	5.4	7.5
World	71.6	83.9	82.7
STOCKS			
World 4/	18.3	19.8	13.9
Expressed as months of crush	3.1	2.8	2.0

1/ Brazil, Argentina, and Paraguay net. 2/ Net of intra-EC trade, plus Brazil's and Paraguay's imports. 3/ Net of intra-EC trade.

4/ Known as stocks only.

Meal Favored Over Oil

After two decades of nearly uninterrupted expansion, the U.S. oilseed industry has undergone severe economic stress in the 1980's. The farm value of U.S. soybean production peaked in 1979 at \$14.2 billion, and exports of soybeans and products peaked in 1979/80 at \$8.6 billion. Soybean and soybean product exports that year equaled 52 percent of production, or 32.2 million tons.

In 1987, the farm value of U.S. soybean production was \$11.8 billion, and exports of soybeans and products totaled \$6.9 billion. The U.S. soybean industry is still a world industry, exporting 55 percent of production during 1987/88, or 28.8 million tons. But, it is a smaller industry than at the beginning of the decade—down 15 percent in production, 17 percent in farm value, and 11 percent in export volume.

Two factors are primarily responsible for the drop in U.S. exports during the 1980's: a falloff in world economic growth; and importing countries' desire for self-sufficiency. In addition, severe debt and foreign exchange problems in many developing countries hurt U.S. exports.

The disparate growth in world production of meal and oil also has affected trade patterns. World production of protein meals (44-percent protein) increased 23 percent from 1979/80 to 1987/88, to 107.7 million tons, while world vegetable oil production rose 37 percent to 52.4 million tons. Over the same period, world production of palm oil, the leading vegetable oil in world trade, increased 79 percent.

As oil became more abundant, the price of meal increased relative to the price of oil. Although U.S. farm prices for soybeans averaged \$6.15 per bushel in 1987/88, nearly the same as a decade earlier, meal and oil prices (basis Decatur) were up 22 percent and down 7 percent, respectively.

Changes in oil and meal price relationships have had an even larger impact in the world market. During the 1980's, the U.S. became less of a factor in the world export market for oil, so much so that it is no longer a commercial exporter.

Crush Moving Away From U.S., Toward South America

An increasing share of world oilseed trade moves in the form of products,

rather than as seed. World trade in soybeans themselves increased only 1 percent between 1979/80 and 1987/88, while trade in soybean oil grew 14 percent and in soybean meal 49 percent.

Nearly all of this rise in trade originated in Brazil and Argentina, where government policies encourage exports of products rather than oilseeds. In 1987/88, soybeans accounted for 75 percent of world oilseed trade, soybean meal for 65 percent of world trade in protein meals, and soybean oil for 19 percent of world trade in vegetable oils. *(Philip L. Mackie (202) 447-7037)*

Cotton

The world cotton market in the 1980's has been characterized by erratic gains in production, steady increases in consumption, and expanding trade. Current relatively low cotton prices should encourage larger global use and trade in 1989/90, while holding production close to 1988. Plentiful U.S. stocks should help boost exports.

Longer term prospects indicate that global production and use likely will continue their upward trends. Stocks probably will increase slightly. But the U.S. role as a major producer, consumer, and exporter could continue to shrink.

Supply and demand conditions critically affect the world cotton price, which has been extremely volatile over the past decade. When the ratio of stocks to use was relatively tight, as in 1979, 1980, and 1983, prices averaged about 90 cents per pound. But when stocks were relatively plentiful, as in 1985, prices dropped to about 50 cents.

World and U.S. Production To Increase

Largely in response to last season's higher prices and declining stocks, world cotton acreage and production are increasing moderately in 1988/89. Consumption is stable, and stocks are rebounding modestly from a 4-year low. Production is forecast at 84 million bales, nearly 4 million above 1987/88.

Among major foreign producers, output is projected up 17 percent in India and 12 percent in the Soviet Union. China remains the world's leading cotton

producer with a crop of 19.5 million bales, matching last season.

Global cotton consumption in 1988/89 is projected at a near-record 83 million bales, almost identical to the past two seasons. Last year's higher cotton prices, among other factors, are limiting use in foreign countries. U.S. use is down about 10 percent, reflecting sluggish denim demand and large apparel inventories.

World cotton stocks at the end of 1988/89 may total nearly 34 million bales, 4 percent above the beginning level. A 3.4-million-bale increase projected for the United States may more than offset a 2-million-bale decline overseas. Stocks are projected to be particularly low in the Soviet Union, Pakistan, and China.

Global cotton trade in 1988/89 is placed at nearly 24 million bales, about matching last season. Foreign exports are offering U.S. cotton stiff competition, with Pakistan, the Soviet Union, and several smaller producing countries benefiting the most.

U.S. Stocks Growing

In the United States, production well above use and a sharp increase in stocks highlight the 1988/89 outlook. The crop of 15.2 million bales slightly exceeded last season's record, as larger area offset lower yields. Meanwhile, combined mill use and exports are expected to be nearly 12 million bales, more than 2 million below 1987/88's relatively high level.

While U.S. mill use is projected down about one-tenth to just under 7 million bales, exports are expected to fall one-fourth to 5 million, owing to generally noncompetitive domestic prices. August 1 stocks are expected to rise from 1988's 5.8 million bales—on a par with the 1982-86 average—to 9.2 million in 1989.

With U.S. prices about 10 percent above world prices, the U.S. export share is expected to fall to 21 percent this season, down from nearly 28 percent in 1987/88. On the brighter side, exports of extra-long staple U.S. cotton are projected at a record 285,000 bales, more than double the 1983-87 average, reflecting large U.S. supplies, strong foreign demand, and reduced competing supplies abroad.

World cotton production in 1989/90 could range from 82 to 87 million bales. While smaller acreage likely will cut U.S. output, China and Pakistan could see larger production.

If growth in population and income follows recent trends, and cotton prices remain low relative to manmade fibers, world cotton consumption likely will set another record. At a minimum, consumption could match the current season's 83 million bales. Under more favorable economic conditions, global cotton use could expand 2 to 4 million bales.

Competition for Import Markets Will Be Strong

Cotton imports, which account for about 30 percent of global use, have increased recently and should continue rising if consumption improves. The United States, Pakistan, the Soviet Union, China, and other exporting countries will compete vigorously for import markets in 1989/90.

These factors may result in a modest drawdown in stocks from the estimated beginning level of 34 million bales. The United States may account for all of the decline. Stocks abroad may change little from their estimated carryover of 24.4 million bales, the smallest since 1983/84. Stocks are expected to remain relatively tight in China and the Soviet Union.

The outlook for U.S. cotton in 1989/90 points to a modest improvement in the supply-demand balance. This is based on recently announced upland cotton program provisions that will limit planted acreage, and possibly encourage mill use and exports through more competitive prices.

For the 1989 upland cotton crop, the Secretary of Agriculture has announced that the maximum 25-percent acreage reduction program will be in effect, double 1988's 12.5 percent. The target price will be 73.4 cents per pound (down 2.5 cents) and the loan rate will be the minimum 50 cents (down 1.8) for base-quality cotton.

Marketing loan Plan B will go into effect when the adjusted world price is below the loan rate. Plan B, which is also in effect this season, allows producers to repay price support loans at the lower of the loan rate or the adjusted world price.

If the world price is less than 80 percent of the loan rate, or 40 cents per pound for base quality, the law would permit a repayment rate between the world price and 80 percent of the loan rate.

Strong participation is expected in the 1989 cotton program, perhaps exceeding 1988's 88 percent. Participating farmers likely will plant their maximum allowable acreage, which means that plantings of all kinds of cotton could total 9.5-10.5 million acres, down from 12.2 million in 1988. Trend yields indicate a U.S. crop of about 12.5 million bales, nearly 3 million below this season.

Strong consumer demand for cotton products, strengthening textile activity, and cotton prices that are competitive with manmade fibers should spur larger use of cotton by U.S. mills in 1989/90. However, continuing intense competition from textile imports may limit any gain in mill use from this season's estimated 6.9 million bales.

Despite recent legislation to make U.S. cotton fully competitive in world markets, exports have fallen on hard times, reflecting fierce foreign competition. But prospects for 1989/90 are brighter.

U.S. cotton is positioned to benefit from larger foreign import demand, especially in view of reduced export availabilities overseas. If its prices are more competitive, the United States should be able to garner 25-30 percent of world trade, up from 21 percent currently.

With improved mill use and export prospects, U.S. cotton disappearance next season may exceed output, resulting in a moderate drawdown in stocks. Still, the carryover likely will remain well above the 4-million-bale target specified in current legislation.

Outlook for the 1990's: Larger Output and Consumption

Larger world cotton output will come mainly through increasing yields; acreage may continue to show little growth. Assuming yields continue to expand at the 3-percent annual rate of the past decade, production could total 90 to 100 million bales by 1995.

China will remain the world's leading producer, although gains likely will be limited by the desire to improve food crop production. In the United States, production will continue to respond to market demand within the framework of Government policy.

A growing and more affluent world population will mean increased fiber demand in the 1990's. If cotton prices remain competitive with manmade fibers, cotton should be able to maintain its global market share of about 50 percent. This points to cotton use of 90-100 million bales by 1995, 20-33 percent above the average of the 1980's.

This scenario for the 1990's, with world production matching or slightly exceeding consumption, implies that stocks will increase slightly. However, while stocks may increase abroad, U.S. stocks may be worked down below the 6-million-bale average of the 1980's.

Given the vast U.S. production potential, which is in marked contrast to that of most competitors, U.S. output can easily respond to growing markets. But, in terms of world market share, U.S. dominance could continue to slip.

With expanding foreign production and intense competition, the U.S. export share may range between 20 and 30 percent by the mid-1990's, compared with 27 percent in the 1980's and 35 percent in the 1950's. [Russell G. Barlowe (202) 447-9805]

Sweeteners

World sugar production in 1988/89 is almost unquestionably headed for its third straight record. Output is forecast at 106.8 million metric tons (raw value), more than 3 percent above last year. The prospect of production this large has stifled prices. After a June-July speculative runup above 15 cents a pound, New York futures prices have been stuck in the 9-11 cent range since August.

The saving grace for producers has been consumption. Despite the recent gain in world prices, from an average of 6 cents in 1987/88, consumption also will be record high in 1988/89. The world sugar situation is expected to be about in

balance, with projections for only a slight stock drawdown—less than 1 million tons.

Modest world price increases from the recent range of 9-11 cents can be expected if there is poor weather in a major cane-producing country, a surge in buying by China or the USSR, or a confirmation of reports that Cuba is heavily overcommitted in its export promises. The longer term outlook appears relatively stable.

EC, India Will See Output Surge

The biggest stories in 1988/89 world sugar production are dramatic gains in the EC and India; sizable increases in Thailand, Cuba, China, and the USSR; and drought-induced losses in the United States, Eastern Europe, and Indonesia.

World production of cane sugar, which accounts for just under two-thirds of total sugar output, has increased 26 percent from the 1978-80 average to a forecast 68 million metric tons in 1988/89. Simultaneously, beet sugar production has risen 15 percent, to 39 million tons likely for 1988/89.

These gains were achieved in different ways—beet sugar by yield advances, cane by area expansion. World beet sugar yields have risen 17 percent from 1978-80 to 1988/89, while cane area has expanded by almost a third.

The greatest potential for wide swings in production are in Brazil and India, the world's largest cane producers. In Brazil, more than half the available cane is distilled for ethanol; in India, 40-50 percent of the cane is ground into locally consumed unmilled sugars. Higher world prices could quickly divert cane into commercial markets.

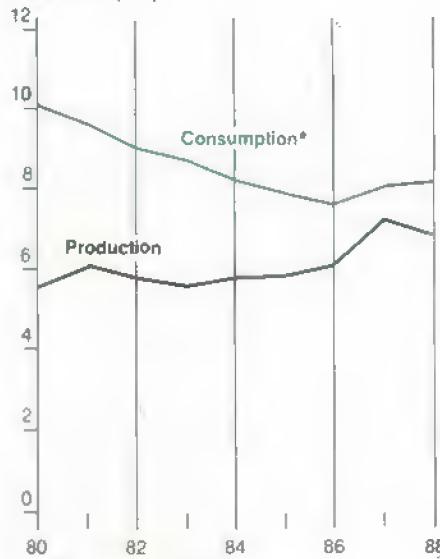
Asia Leads Rise in World Consumption

World sugar consumption for 1988/89, forecast at 107 million tons, is 2 percent above a year earlier and more than 7 million tons above 1985/86. More than half the increase has occurred in Asia, led by China and India, countries whose per capita consumption remains among the lowest in the world.

World consumption has grown about 2 percent per year over the past decade. It

U.S. Sugar Consumption Beginning To Recover

Million tons (raw)



*Total deliveries. 1988 forecast.

faltered only during 1979-80, when prices averaged 23 cents a pound.

India's recent production success has enabled it to increase consumption while almost eliminating imports. In contrast, China achieved its consumption gains by more than doubling its sugar imports over the past 4 years. China's import decisions have been a major factor in the sugar price rebound of the past several years, and will remain so in the future.

Soviet consumption, which has increased by about 1 million tons since 1985/86, has been another key factor in the world market. Despite large production gains, the USSR has remained the world's largest importer, likely taking over 5 million tons this season. The Soviets' anti-alcohol policy, although soon to be relaxed, has driven up demand for soft drinks and for sugar to be used in the illegal distilling of alcohol. The policy also has caused sugar rationing and hoarding, and made it difficult to forecast sugar consumption.

Sugar consumption has faltered in the developed world for several years. Per capita consumption is near saturation, and corn sweeteners, where permitted, have cut into sugar market shares.

In the United States, the decade-long substitution of corn sweeteners for sugar in the beverage industry has run its course,

and sugar consumption is rising modestly. U.S. consumption this season is forecast at 7.5 million tons, 1 percent above 1987/88.

World Exports Dwindle

World sugar exports climbed dramatically during the 1970's and early 1980's because of rising incomes and the developing world's increasing demand for white sugar. The oil-exporting countries led the climb.

The EC was well positioned to take advantage of the demand surge, transforming itself from a major net importer in the mid-1970's to a leading exporter by the end of the decade. The EC's white sugar exports last year were five times those of Brazil, the second largest white sugar exporter. Cuba has dominated the raw sugar export market, which grew only modestly in the early 1980's and has contracted since.

Since 1983/84, world sugar exports have declined fairly steadily. Reasons include government policies stressing self-sufficiency in sugar, production gains in importing countries such as India, and reduced income in the oil-exporting nations. Thailand is the one raw sugar exporter that has substantially increased its sales in recent years, taking advantage of the growing Asian market, especially China.

U.S. Cane and Beet Acreage Expanding

U.S. beet area expanded 4 percent in 1988 and cane area 2 percent. But drought in the Red River Valley and disease problems in California reduced beet sugar production for the 1988/89 crop year to around 3.4 million short tons, down from a near-record 3.95 million a year earlier. Cane sugar production is expected to remain near last season's record of 3.33 million tons.

Between 1982/83 (when import quotas were first imposed) and 1987/88, U.S. sugar production rose a fourth, with beet sugar up 44 percent and cane sugar up 9 percent. The increase was achieved by area expansion and improved sucrose recovery rates. Both beet and cane yields declined over this period.

Beet area rose 22 percent during the last 5 years, led by gains in the Red River Valley and Michigan. Cane area rose 11

percent as increases in Florida and Louisiana more than compensated for a decline in Hawaii. Research on improved seed varieties and milling technology paid off, with recovery rate increases of 8 percent for beets and 4 percent for cane; both industries achieved record rates in 1987/88.

U.S. Sugar Deliveries Maintaining Market Share

Sugar deliveries appear to be maintaining their market share, as high fructose corn syrup ceases to be a large raider of sugar markets. But the pace of sugar's recovery in the U.S. sweetener market has slowed.

Fiscal 1988 deliveries, at 8.19 million short tons, were less than 2 percent above the previous year. USDA has lowered its calendar 1988 estimate to 8.215 million tons, and fiscal 1989 deliveries are forecast at 8.275 million tons.

Fiscal 1988 deliveries of beet sugar rose 12 percent, while cane deliveries dropped 6 percent. After accounting for more than two-thirds of U.S. sugar deliveries in 1982/83, cane sugar now accounts for around half. The shift is due mainly to the restriction of raw cane imports under the quota program and to beet sugar's attractive pricing, even to markets in the Eastern U.S.

Nonindustrial use of sugar declined through the mid-1980's but has been rising modestly since. Deliveries to retailers have continued to slip, but deliveries to wholesalers have rebounded since 1984. This reflects, for the most part, increased amounts of sugar used by restaurants and by small bakers and confectioners, who buy wholesale rather than directly from refiners.

Industrial use of sugar nosedived until 1987, as corn sweeteners replaced sugar in soft drinks, but food consumption of sugar has declined very little over the years. A 7-percent increase in deliveries for food use in 1987, to 4.0 million short tons (refined), fanned optimism for future consumption. However, food use may have declined to 3.9 million tons in 1988.

Among the food categories, only bakery and cereal use appeared to expand. Both

the bakery and confectionery categories are likely to continue growing with the U.S. population.

Outlook for Alternative Sweeteners Mixed

U.S. consumption of HFCS in 1988 probably surpassed 6 million tons (dry basis) for the first time, up from 5.77 million in 1987. Disappearance exceeded early season expectations, because of increased soft drink consumption during the hot, dry summer. Consumption is forecast to rise 3 percent in 1989, with further modest gains to about 6.5 million tons by 1992.

Three low-calorie sweeteners are currently approved by the Food and Drug Administration (FDA): aspartame (with a 70-percent market share), saccharin, and recently, acesulfame-K. Aspartame has enjoyed its greatest growth as a soft drink sweetener. But the near-term future of these sweeteners appears limited; they do not provide the bulk that sugar does, and tend not to withstand heat.

Per capita use of low-calorie sweeteners has about tripled in the past decade, propelling the low-calorie share of the U.S. market to 12-14 percent, up from 5 percent in the late 1970's.

The expiration of NutraSweet's patent on aspartame, due in 1992, will be a key industry development. Analysts suggest that aspartame prices could drop from about 30 cents per pound to as low as 10.

The HFCS share of the beverage market could be the most vulnerable to less expensive aspartame. But, the lower price probably would discourage producers of alternative sweeteners from taking on the costly process of FDA approval. [John C. Roney (202) 447-5912]

Vegetables

The 1988 drought reduced yields and stressed fresh and processed vegetables, potatoes, sweetpotatoes, and pulses. Output of the major categories dropped an estimated 6 to 8 percent, from 863 million pounds in 1987. Retail prices rose.

The outlook for 1989 vegetable crops depends on a return to normal weather, increased competition for land, and public perception of food safety.

Vegetable growers are still in desperate need of precipitation to replenish soil moisture and irrigation reservoirs, particularly in California, where two successive dry seasons have depleted reservoirs.

Competition for land among crops may force reductions in vegetable acreage. Because of the drought, many field crops were left with insufficient seed supplies. Some fall and winter vegetable land (primarily in Florida) is being devoted to field corn for seed.

Vegetable Production and Receipts Down Slightly

Harvested acreage for all fresh-market vegetables in 1988 may have risen slightly above the 1.1 million acres harvested in 1987. Increased winter and spring acreage offset lower summer and fall acreage.

Fall harvested acreage of California broccoli and cauliflower declined 6 percent, as growers adjusted to larger frozen imports. Fall area of Florida sweet corn dropped 17 percent because some growers chose to raise seed corn for the 1989 field corn crop.

Production of the 10 major fresh vegetables (asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, onions, tomatoes, and honeydews) for 1988 likely was down slightly from 1987's 219.6 million cwt.

Projected fresh vegetable production through 1992 shows a trend increase of 1.3 percent per year. The expansion is in response to higher per capita disposable incomes, population growth, and the increasing average age of the population.

Cash receipts for all vegetables (including potatoes) probably fell 3.5 percent in 1988 from the record \$9.2 billion of 1987. Much of the decline stemmed from low potato prices early in the year and the drought's impact on processed vegetable production.

Many fresh vegetables were unable to repeat their strong 1987 performances;

Grower & Retail Price Indexes for Vegetables

Item	1985	1986	1987	1988F	1989F
Grower prices (1977=100)					
Fresh	122	123	147	143	124
Commercial	129	130	144	140	133
Retail prices (1982-84=100)					
Commercial	104	108	122	128	129
Processed	104	104	107	111	115

Sources: National Agricultural Statistics Service, USDA, and Bureau of Labor Statistics, Department of Labor.

F = forecast.

U.S. Production of Major Vegetables, 1980-92

Year*	- - - Vegetables - - -		Potatoes	Dry edible beans	Total
	Fresh	Processing			
MILLION CWT					
1980	191.9	191.1	303.9	26.4	713.3
1981	196.4	184.4	340.6	32.2	753.6
1982	207.9	223.6	355.1	25.0	811.6
1983	197.9	205.4	333.9	15.5	752.7
1984	217.1	227.9	362.6	21.1	828.7
1985	217.9	221.9	407.1	22.1	869.0
1986	216.3	219.5	361.5	22.9	820.2
1987	219.6	231.6	385.5	26.3	863.0
1988	210.5	217.3	352.1	20.0	799.9
1989	226.0	221.1	377.0	24.9	849.0
1990	228.9	225.3	380.0	25.0	859.3
1991	231.9	228.2	384.0	25.2	869.4
1992	234.9	231.2	387.0	25.3	878.4

*Data after 1987 are based on ERS baseline estimates.

grower prices for lettuce and onions fell substantially below a year earlier. Potato receipts likely fell a tenth or more. Receipts for dry beans dropped about the same.

Vegetable growers' costs of production increased in 1988 and are expected to rise again in 1989. Prices paid by farmers for all inputs probably will advance 4-6 percent, compared with a 5-percent rise in 1988.

Inputs important to most vegetable growers, such as fertilizers, pesticides, seed, and marketing containers, likely will carry higher prices in the coming year. Part of the rise in prices will come from stronger demand from producers of program crops, such as wheat and corn; these farmers will be planting more area in 1989.

Domestic Vegetable Use Should Grow

U.S. per capita use of all commercially produced vegetables may have dropped about 2 pounds in 1988 to 323 pounds. In 1987, use dropped 1.4 pounds, the first decline since 1981. Nevertheless,

domestic use is expected to grow about 0.5 percent per person per year over the next several years. Then it probably will show more sizable gains as the proportion of teenagers and older people—both big vegetable consumers—grows.

U.S. lettuce and tomato use, which accounts for about 45 percent of fresh vegetable use, declined in 1988 because of disease-reduced yields in California lettuce and higher export demand for tomatoes.

Per capita use of potatoes fell slightly in 1987/88 to 123 pounds, mainly because of lower fresh use. Although fresh use remained large, freezing use crept within a pound of fresh because of the growth in disposable incomes and the increasing number of meals eaten away from home.

Given strong demand for a wider variety of fresh vegetables, use of specialty vegetables (jicama, snow peas, etc.) will continue to grow at a faster rate than use of traditional fresh vegetables. Specialty

vegetable use, based on California production and imports, is between 10 and 20 pounds per person annually.

Fresh Vegetable Prices Down 2-4 Percent in 1988

The index of prices received by growers for fresh vegetables fell 2-4 percent in 1988, mainly because lettuce prices dropped from record highs in fourth-quarter 1987. Grower prices tended to be up most of 1988 because of the drought. Assuming average weather, grower prices in first-quarter 1989 are expected to average a tenth below the 162 (1977=100) of first-quarter 1988.

The CPI for vegetables, including potatoes, paralleled the grower price index in the first three quarters of 1988 as local vegetable supplies tightened. For all of 1988, retail vegetable prices likely rose 6 percent.

The divergence between grower and retail prices in 1988 reflects higher retail marketing costs, due in part to the increased grocery space allocated to vegetables and the more intensive management required to ensure product quality.

Packaging costs continued to rise, increasing the price of prepackaged fresh commodities. The 1989 CPI for vegetables may be only slightly higher than in 1988, as supplies of fresh vegetables return to more normal levels.

Processed Vegetable Production Down, Prices Up

Production under contract for processing snap beans, sweet corn, green peas, and tomatoes in 1988 totaled 217.3 million cwt, 6 percent below 1987 and the lowest in 3 years. Tomatoes, which account for about 66 percent of processed output, increased fractionally.

But, severe drought cut production of the other three crops, particularly in Wisconsin, Minnesota, Michigan, and Illinois. By mid-August, canners were quoting f.o.b. prices 25-35 percent higher than at the beginning of the summer for these three major canning vegetables.

Higher wholesale prices for sweet corn, snap beans, and green peas were quickly reflected in the consumer price index for

processed vegetables, which posted its largest year-to-year increase since 1983, the last year a drought affected the Midwest. The CPI is expected to remain above a year earlier through the 1989 pack.

While wholesale and retail prices rose, grower prices for processed vegetables likely did not. Grower prices are contracted in the spring and generally are adjusted only at harvest for quality and quantity.

Since the drought lowered quality, grower prices for some vegetables were adjusted downward. However, processors will have to pay much more to growers in 1989, as supplies will be nearly depleted and growers will be looking at alternative crops that have bullish markets.

Potato production in 1988 dropped to 352 million cwt, 9 percent below a year earlier and the lowest since 1983. The drought affected the summer and fall harvest, wiping out strong gains in both the winter and spring potato harvests.

Grower prices for potatoes likely will average above a year earlier during 1988/89, as reduced stocks lead to stronger competition from both processors and table stock users. Acreage likely will rebound in 1989/90.

Processor demand could strengthen in the next few years. Continued strong export demand is expected for frozen french fries, and the introduction of vending machines to sell freshly cooked frozen fries could expand the market.

Drought Reduced Dry Bean Production

Production of dry beans in 1989 is expected to return to its trend of around 24.9 million cwt, after drought cut 1988 production 24 percent to 20 million cwt—the lowest since 1983. Dry bean production has become increasingly attractive in the past several years because of rising demand for specialty beans and the potential for substantial exports.

Because the drought boosted prices of program crops such as corn and wheat, 1989 dry bean planted acreage may rise only modestly, even though prices jumped an estimated 71 percent this season. Acreage may be between 1.5 and 1.6 million. Because production is

not expected to expand dramatically, season average grower prices likely will drop only slightly to around \$20-\$22 per cwt, well above the 1985-87 average of \$17.40.

Other restrictions on dry bean production in 1989 may come from expansion of the Endangered Species Act, which could limit pesticide use. Also, U.S. dry bean growers are concerned about subsidies to Canadian producers. The subsidy program could keep Canadian production high, allowing Canada to develop an advantage in the export market.

U.S. Vegetable Trade Deficit Narrowing

After increasing for 6 straight years, the U.S. deficit in net vegetable trade showed some improvement in 1988. Through the third quarter, exports of fresh vegetables and melons rose 32 percent from a year earlier to 1.1 billion pounds. Total 1988 fresh vegetable exports probably reached nearly 1.7 billion pounds, a volume that has not been attained since 1981.

During the first 3 quarters of 1988, exports of frozen potatoes rose more than two-thirds from the same period in 1987. Gains in frozen potato exports, comprised mainly of french fries destined for Japan, were largely due to the dollar's weakness against the yen and to promotions under the Targeted Export Assistance (TEA) program.

Imports of frozen broccoli and cauliflower increased 3 percent in 1988, but were sharply below the 73-percent expansion in 1987. The two products account for about 95 percent of total frozen vegetable imports, and have grown an astounding 38 percent per year since 1983.

Mexico, which in 1988 provided 84 and 95 percent of U.S. frozen broccoli and cauliflower, respectively, appears to have a competitive advantage over California because it has lower labor and land costs.

The recent U.S. immigration law, now being implemented, could increase agricultural wages in the United States and widen Mexico's advantage. However, Mexican producers may be facing some of the same water quality and pesticide issues as California producers. [Shannon Hamm (202) 786-1884]

Fruit & Tree Nuts

The fruit industry expects substantially smaller supplies of noncitrus during 1988/89. Early spring frost, high temperatures, drought, hailstorms, and tree stress from last year's bumper crop contributed to smaller crops of many fruits.

However, production of apples, pears, and tart cherries is expected to increase in the years ahead as more trees reach their full bearing potential.

This season's citrus crop is projected to be moderately larger than last season, as output in Florida and Texas continues to recover from the early-1980's freezes. The downward trend in citrus acreage appears over, with Florida showing a significant gain and area in Texas up as well.

Tree nut supplies this season will be relatively large even with smaller almond, filbert, and walnut crops.

Demand for fruit and tree nuts has been strong, particularly for exports, which have been boosted by the weak dollar and promotional activities under the Targeted Export Assistance program. This situation is expected to continue. Moderate economic growth is likely to support domestic demand.

Larger supplies are likely to weaken citrus prices from last season's high, but reduced supplies and stable demand should push noncitrus prices above last year's low. Grower prices are likely to average slightly to moderately higher this winter than a year ago.

Citrus Crop Up 7 Percent

The 1988/89 U.S. citrus crop (excluding grapefruit in California's "other areas") is forecast at 13.3 million short tons, up 7 percent from 1987/88 and 13 percent above 1986/87. The orange crop may be the largest in 5 years, at 215 million boxes, and lemons could rise 10 percent above last year. Larger crops are forecast for all citrus except tangelos.

Prospects for U.S. orange exports in 1988/89 are favorable because of expected lower prices, increased supplies,

Grower & Consumer Price Indexes for Fresh & Processed Fruit

	Grower price, fresh & processing	CPI, fresh fruit	CPI, processed fruit
1985	180	116	109
1986	170	119	106
1987	182	132	111
1988*	177	143	121

*Grower price is January-November average; CPI prices are January-October average.

Source: Bureau of Labor Statistics and Agricultural Prices, NASS, USDA.

U.S. Citrus Production

Crop	1979/80	1987/88	1988/89	Change from	
				1,000 short tons	Percent
Oranges	11,832	8,457	9,202	-22	9
Grapefruit*	2,875	2,623	2,642	8	1
Lemons	789	785	863	9	10
Templets	270	160	171	-37	7
Tangelos	288	189	176	-39	-7
Tangerines	408	212	217	-47	2
Total	16,462	12,426	13,271	-18	7

*Excludes California grapefruit in "other areas."

U.S. Production of Selected Noncitrus Fruit

Crop	1986	1987	1988	Change from	
				1,000 short tons	Percent
Apples	3,967	5,271	4,067	3	-23
Apricots	55	115	101	84	-12
Cherries	250	390	272	9	-30
Grapes	5,226	5,265	5,457	4	4
Nectarines	172	191	195	13	2
Peaches	1,164	1,214	1,264	9	4
Pears	766	940	798	6	-15
Prunes/plums	491	978	812	62	-19
Strawberries	510	534	562	10	5
Total	12,601	14,897	13,528	7	-9

the weak dollar, and continued promotion. Exports of oranges through September of 1987/88 were down 16 percent from a year earlier. Higher prices weakened foreign demand, and supplies of large-sized California valencias were tight.

Movement of Florida frozen concentrated orange juice (FCOJ) during 1987/88 was slightly ahead of a year earlier. Following market promotions last summer, f.o.b. prices have been steady at \$5.28 a dozen 6-ounce cans, compared with \$5.36 a year earlier. FCOJ export demand stands to benefit from the increase in the Japanese import quota, which will rise from 8,500 metric tons to 15,000 for the 1989 Japanese fiscal year.

The larger Florida orange crop and relatively high juice yield could raise FCOJ

output to near 180 million gallons in 1988/89. The juice yield is forecast at 1.52 gallons a box at 42.0 degrees Brix. Even with the increased pack and a relatively large carryin, U.S. supplies will not be adequate to meet domestic demand. Consequently, imports (mostly from Brazil) will remain large, but likely below 1987/88.

Fresh Noncitrus Supplies Decline

The 1988 noncitrus crop—including major tree fruits, grapes, and strawberries—is estimated at 13.5 million short tons, down 9 percent from 1987, but 7 percent above 1986. Most of the decline resulted from sharply lower apple and pear crops.

Smaller crops were recorded for apricots, cherries, prunes, and plums; larger crops

of peaches, nectarines, grapes, and cranberries only partially offset the drop. Overall, prices are likely to be higher than a year earlier.

The 1988 U.S. apple crop, at 8.13 billion pounds, was down 23 percent from 1987's record because of poor weather. Supplies for the fresh market, particularly red delicious, will be well below a year earlier. Prices will be substantially higher, although they may be moderated somewhat by the larger California navel orange crop.

The trade picture for fresh apples improved significantly in 1987/88, with exports up 74 percent from the preceding season. The outlook for this season is not as bright, because of smaller supplies and higher prices. Larger crops and trade regulations abroad will cut U.S. exports.

The 1988 U.S. grape crop was an estimated 5.46 million short tons, 4 percent above a year earlier because of expanded production in California. The use of table grapes for the fresh market is expected to rise because of strong domestic demand. Table grape exports may continue growing in response to expanded promotion. During the first 4 months of 1988/89, table grape exports were up 9 percent from a year earlier.

The 1988 pear crop, at 798,100 short tons, was 15 percent below the previous year's record. California pear growers have settled with processors for a field price of \$200 a short ton for canning bartletts, the second highest price in the last 35 years. Smaller apple supplies will keep f.o.b. prices for winter pears above a year earlier.

Supplies of canned fruit will be tight again during 1988/89 because of depleted carryin stocks. Prices should stay high, and packers have already announced further price hikes for several items. The October producer price index was record high at 115.3 (1982=100).

Raisin output, estimated at 360,000 short tons, is about the same as in 1987/88. With bigger carryin, the 1988/89 supply will be relatively large. However, strong demand and high field prices are likely to keep prices firm.

The 1988 pack of frozen fruit and berries likely was below 1987. As of November 1, cold storage holdings totaled 1.1 billion pounds, up 11 percent from a year earlier. Relatively large stocks were indicated for most fruit and berries, with peaches recording the biggest increase. Given the healthy economy, demand and prices likely will remain stable.

Tree Nuts in Ample Supply

U.S. supplies of most tree nuts will be large this season. Bigger crops are estimated for pecans and pistachios, while smaller crops are expected for almonds, filberts, and walnuts. Export demand looks favorable because of large supplies, the weak dollar, and increased promotional activities. Domestic demand is expected to be stable.

The 1988 California almond crop was estimated at 580 million pounds (shelled basis), 12 percent below 1987's record 660 million pounds. Exports may reach record highs, as almonds are favorably priced at current exchange rates.

Domestic demand is expected to continue strong, with prospects for record per capita consumption. Grower prices probably will average above \$1 per pound, compared with 95 cents for 1987/88.

Filbert (hazelnut) production in Washington and Oregon was estimated at 18,000 short tons in 1988, compared with 21,800 in 1987. Grower prices appear to be returning to near \$1,000 per ton after dropping as low as \$558 in 1983. Filbert imports during January-August 1988 were 12 percent below the same period in 1987.

California's 1988 walnut production was an estimated 200,000 short tons (in-shell basis), 19 percent lower than the 1987 record but 11 percent above 1986. The crop was hurt by the hot, dry summer, which resulted in shriveled kernels and drying problems.

Walnut stocks at the beginning of the 1988/89 marketing season were 60.3 million pounds (kernel weight basis), compared with 28.4 million in 1987 and 52.5 million in 1986. With a large carryover and normal production, supplies should be ample to meet domestic and export needs. Prices are expected to stay firm.

The 1988 pecan crop in the 11 major producing States was placed at 277 million pounds (in-shell basis), 6 percent above 1987. The drought caused smaller sized and lighter weight nuts. Trade sources indicate total pecan supply similar to a year ago.

California's pistachio crop, at an estimated 85 million pounds (in-shell basis), was the largest ever and significantly above 1987's 33 million pounds. Production is cyclical because of the alternate-year bearing characteristics of pistachio trees. California production is expanding rapidly to meet domestic demand and the ban on imports from the world's largest supplier, Iran. [Ben Huang and Doyle Johnson (202) 786-1885]

Tobacco

U.S. tobacco production may rise for the third consecutive year in 1989. Production hikes may continue into the early 1990's. Current output is below disappearance, and surplus stocks have nearly been used up.

Domestic leaf use is expected to rise because of increased cigarette production and substitution of U.S.-grown for imported leaf. Exports are likely to climb, aided by lower U.S. tobacco prices and increased demand for burley for blending. Also, cigarette exports are expanding because of strong demand for American cigarettes and the opening of new markets, particularly the Far East.

The outlook for tobacco has improved markedly in the past few years because of legislation enacted in April 1986. The legislation significantly changed the quota-setting procedure, price support levels, and no-net-cost assessments for burley and flue-cured tobacco.

Output and Exports To Rise In the Short Run

Hikes in production are expected from the relatively low 1986-88 levels. But production approaching the 1.8-2.2 billion pounds of the 1970's and early 1980's is not in the picture. Furthermore, production hikes are likely to give way to declines before the mid-1990's because of falling U.S. cigarette consumption.

Cigarette consumption may drop around 2 percent a year over the next several years. Several factors are responsible: Manufacturers likely will continue to raise cigarette wholesale prices. State excise taxes on cigarettes will keep going up, and the Federal excise tax will almost surely be raised, perhaps substantially. In addition, smoking restrictions and other antismoking activity will no doubt continue vigorous.

The U.S. tobacco outlook for 1988/89 is highlighted by sufficient supplies overall, but shortages for some grades. Compared with a year ago, U.S. prices are higher because of better crop quality.

Both domestic use and exports may rise. U.S. production in 1988, estimated at 1.33 billion pounds, was up about 12 percent from 1987's low. But smaller carryin stocks reduced supplies about 7 percent to 4.2 billion pounds.

The size of the 1989 crop will depend in part on USDA's decisions on quotas. Smaller supplies suggest that the basic quotas for flue-cured and burley will be raised, but manufacturers' purchasing intentions are the largest factor in the formula for setting flue-cured and burley quotas. Effective quotas likely will be higher for both types in 1989.

Production of all tobacco will be up in 1989 if yields are average. Prices are likely to stay near the higher 1988 levels because supplies of some grades may remain low. Consequently, the value of the crop may increase.

U.S. Cigarette Sales Declining, Exports Up

Cigarettes are the dominant tobacco product in the United States and most other countries. Because of increased exports, U.S. output rose to around 705 billion pieces in 1988, about 15 billion above 1987 and the third highest on record. But U.S. cigarette consumption probably fell about 1-1/2 percent.

U.S. consumption per person 18 years and older dropped an estimated 75 cigarettes in 1988 to 3,121. This is the lowest since 1944 and 28 percent below the 1963 peak.

Both total and per capita consumption are likely to decline again in 1989. Primary factors influencing these

declines are price hikes (because of increased manufacturers' costs, including profits) and tax increases. Further State tax increases are expected in 1989.

Wholesale cigarette prices rose in December 1987 and again last June. For the last 6 years, manufacturers have raised wholesale prices 3-5 percent at about 6-month intervals. Retail prices have risen 6 to 9 percent a year, faster than overall consumer prices. Sales of generic and value-priced cigarettes (an intermediate type between generic and standard brands) now account for over a tenth of U.S. sales.

Antismoking activity, including legislation, continues to affect the industry. Forty-two States either prohibit smoking in certain places or segregate smokers and nonsmokers. In April, a Federal law banned all smoking on U.S. airline flights scheduled for 2 hours or less.

Bills have been introduced in Congress to ban all advertising of tobacco products, ban the sale of tobacco products in vending machines, and require cigarette packages to bear a label indicating that nicotine is addictive. The cumulative effect of publicity and ordinances on smoking is uncertain, although it surely accounts for some of the downward trend in per capita consumption.

World Production and Exports Up Slightly

World tobacco production in 1988 is estimated at 14.3 billion pounds (farm sales weight), up 5 percent from 1987. The larger 1988 production is due mainly to hikes in the United States, Brazil, and China. Production may have been lower in India, Zimbabwe, Malawi, and Turkey.

World cigarette production in 1988 may have reached 5.2 trillion pieces, 2 percent above 1987. Although consumption is stagnant or declining in the United States, Western Europe, Canada, and Japan, increased consumption in China will keep world production on the rise.

China's 1988 cigarette production was forecast to rise by 8-10 percent above 1987, to around 1.57 trillion pieces. However, stagnant consumption in the industrialized nations likely will slow future increases in cigarette output.

World leaf exports likely reached 3.05 billion pounds in 1988, up 2 percent from 1987's total. U.S. leaf exports also rose in 1988.

U.S. Prices and Income Higher

With slightly higher support prices and stronger demand, 1988 flue-cured auction prices averaged \$1.61 a pound, 2 cents above 1987. Cash receipts from the 1988 flue-cured crop were up about 16 percent.

In addition, the producers' no-net-cost assessment was reduced from 1987's 2 cents to 1 cent (excluding the .13-cent budget deficit assessment), boosting returns slightly. Although price supports for both flue-cured and burley were a little higher in 1988, supports for other kinds declined.

Burley auctions opened November 21, with prices averaging above a year earlier. Cash receipts from the 1988 burley crop may increase 10-15 percent.

About 15 million pounds of flue-cured tobacco were placed under loan in 1988, 9-1/2 million fewer than the year earlier and the lowest on record. Government price support is mandatory for tobacco produced under marketing quotas. Support levels for 1989 have been set at 146.8 cents per pound, 2.6 cents above a year earlier.

Flue-cured and burley price supports are set according to the level for the preceding year, adjusted by changes in the 5-year moving average of prices (two-thirds weight) and changes in the production cost index (one-third weight).

Marketings from the 1988 flue-cured crop and from unsold 1987 production were about 17 percent above a year earlier when markets closed last November. But with a smaller carryover, flue-cured supplies for 1988/89 are about 5 percent lower.

Because of excess production in 1987, 15-20 million pounds of 1987-crop flue-cured was sold in 1988. Some growers have 1988 crop tobacco in excess of their penalty-free quota to carry into the 1989 season (103 percent of effective quota can be marketed without penalty).

The 1989 national basic quota for flue-cured tobacco is 890.5 million pounds, up 18 percent from a year earlier. When undermarketings from the 1988 crop are added, the effective quota (sum of individual quotas) is up about 11 percent to around 900 million pounds.

Supplies of burley have declined since 1984 and, as with flue-cured, they now represent about 2.5 years' use. Production in 1988/89 increased 9 percent from 1987. Acreage rose 4 percent and yields were up 6 percent. But carryover stocks on October 1 were 16 percent below a year earlier, because use exceeded 1987 production. As a result, 1988/89 supply is about 9 percent below last season.

Burley disappearance totaled 635 million pounds for the year ending September 1988, 12 percent above the previous year and a record high. Domestic use rose, largely because of increased cigarette production, but exports were off, mainly because of the poor-quality 1987 crop.

Total burley use may increase in 1988/89, with hikes in both domestic use and exports. Domestic use may rise because of increased cigarette production and substitution of domestic for imported burley. Although higher than in the last 3 years, prices are still somewhat lower than before 1985. These lower prices, together with the weaker dollar and the increasing world demand for blended cigarettes, may keep burley exports up.

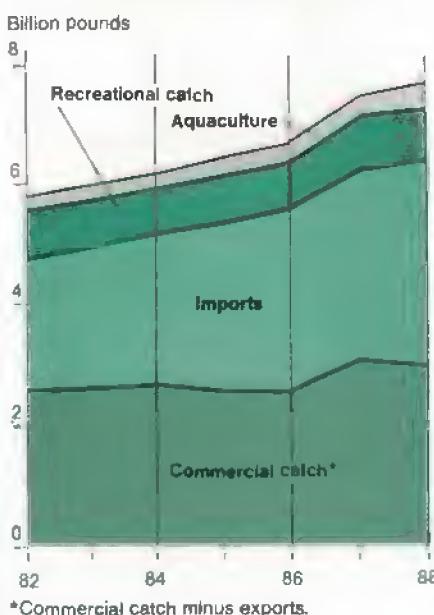
Among other types of tobacco, supplies of fire-cured, Maryland, dark air-cured, and cigar tobacco are all down.

Referenda will be held in early 1989 to determine if growers of flue-cured, burley, Maryland, Virginia sun-cured (type 37), Pennsylvania filler (type 41), and cigar binder (types 51-52) desire acreage allotments for their next three crops. Maryland, Pennsylvania filler, and cigar binder growers voted against quotas in previous referenda. [Verner N. Grise (202) 786-1890]

Aquaculture

Aquacultural output will expand modestly in 1989. New facilities should increase catfish output by 3-5 percent, with supplies remaining tight. Salmon production will continue to expand as new

Despite Growth, Aquaculture Provides Only Fraction of U.S. Fishery Products



facilities come on line. Trout and shellfish production should see small increases. Output of new species will grow rapidly, although they will furnish a very small portion of total supply.

The outlook is less favorable for other aquaculture products. Baitfish production should remain near 1988 unless increasing demand for catfish fingerlings reduces baitfish acreage in Arkansas. Tropical fish output likely will be unchanged. Following 2 years of low prices, crawfish production probably will decrease.

High prices and short supplies led to acreage expansions for many aquacultural species in 1988. With modest increases in feed efficiency and stocking rates, overall output could expand for the next 2-3 years. As new products emerge, demand likely will outpace supply, raising prices and providing the industry incentive to expand.

Output Eventually Could Reach 2 Billion Pounds

Because of the trend toward less red meat, changing consumer preferences may be the overriding factor in the growth in aquaculture. If the industry continues to provide a constant volume of consistently high-quality and reasonably priced product, output may reach about 2 billion pounds by the year 2000. Catfish, salmon, striped bass, trout, and

crawfish should provide the greatest share.

Given sufficient research, output could expand to as much as 3 billion pounds by 2000:

- Catfish production could reach 1 billion pounds if new markets can be opened and industry infrastructure can be expanded beyond Mississippi into other States.
- Crawfish production could double, given aggressive marketing to increase consumption outside of Louisiana.
- Salmon output may double provided new production sites can be obtained. But markets will be highly volatile as numerous countries expand production and as wild catch, still a major part of world supplies, continues to fluctuate.
- Shellfish will increasingly substitute for wild harvest. Aquacultural production of mollusks likely will remain mostly in the hatchery stages with grow-out continuing in the ocean.
- Striped bass is likely to be the fastest growing aquacultural product, with output possibly exceeding 100 million pounds. Striped bass has a ready market and culture has begun.
- Trout production may increase about 25 percent as genetically superior fish increase growth rates and decrease production costs.

Perch, walleye, and pike, which are harvested through recreational catch, may fill a market niche. But species such as tilapia and carp will require aggressive marketing and promotion to become part of the U.S. diet.

Aquacultural Production Increasing By 20 Percent Annually

U.S. aquacultural production has increased more than 20 percent a year since 1980. In 1987, output amounted to over 750 million pounds valued at more than \$650 million.

In volume, catfish, crawfish, and salmon are the fastest growing of the developed aquacultural industries. The catfish industry holds almost 45 percent of U.S. output, crawfish 13 percent, and salmon 11.

Catfish, trout, and baitfish are the top three industries based on value of output. Catfish production was worth over \$275 million in 1987. Baitfish and trout were a distant second and third, at about \$70 and \$60 million, respectively.

U.S. consumption of edible fishery products increased more than 200 million pounds a year in the 1980's. This boom has been prompted by changing consumer preferences, the changing ethnic make-up of the population, increasing household incomes, and more aggressive marketing by fishery processing and marketing firms. U.S. fishery product consumption was a record 20.2 pounds per person in 1987.

Commercial catch and imports compose the bulk of the U.S. fishery supply.

However, the commercial catch—at 3.9 billion pounds in 1987—rose only .2 billion from 1980, while imports increased 1.1 billion pounds to a record 3.2 billion.

Faced with a strong market for fishery products and weak markets for traditional commodities, many farmers began to diversify into aquaculture in the late 1970's and early 1980's. Aquaculture now provides over 7 percent of all fishery products consumed in the United States, compared with about 1 percent in 1980.

Will the Rapid Expansion Continue?

Consumer incomes will affect both the quantity and type of fishery products consumed. A 1-percent increase in household income is expected to boost demand for fishery products 0.1-0.2 percent. Rising household incomes would have the largest effect on fresh product demand.

The relative prices of fishery products will have the largest impact on those products that are close substitutes. The expected increase in the price of shellfish relative to finfish may slow demand for shellfish, while generating additional demand for finfish.

Consumer preferences and the perceived health benefits of fishery products will continue to play a strong role in demand growth. Consumers are likely to have more confidence in grain-fed aquacultural products raised in controlled environments than in the wild harvest.

Input prices pose the greatest uncertainty for aquaculture. Feed constitutes almost half of the operating cost associated with finfish production, while another 15-20 percent is the cost of energy for pumping and aerating. An increase in the price of soybean meal, which comprises roughly 50 percent of catfish feed, caused feed prices to jump nearly 60 percent on forward orders in 1988.

Resource scarcity will be a lingering problem. States such as North and South Carolina, Oklahoma, and Texas, with readily available high-quality water resources, rarely have access to aquacultural management and marketing services. In contrast, Mississippi has sufficient marketing services, but does not have new sources of high-quality water.

New species will be a major source of expansion over the next decade. Commercialization of many species indigenous to certain areas in the U.S. could allow the use of resources not currently involved in aquaculture. For instance, hybrid striped bass, with a ready market, can be produced on the East Coast.

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Upcoming Economic Reports

Summary Released Title

January

- 13 World Ag Supply and Demand
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Farm Finance

The farm finance outlook for 1989 is favorable, in large part because of the continued strength of crop and livestock sales. Slightly higher commodity sales, totaling \$148-\$152 billion, are forecast.

The fundamentals that undergird long-term trends in farm income are strengthening. Land markets improved in 1988 and the farm balance sheet stabilized. Excess commodity stockpiles were alleviated by the drought. Input costs and commodity prices will be in better balance in 1989.

However, three negative factors cloud the outlook:

- the farm sector will continue to rely heavily on Government payments in 1989, signaling that it has not fully regained its competitive edge;
- USDA estimates that about 15,000 commercial farms will be financially on the ropes because of losses from the drought. About 15-20 percent of highly specialized corn/soybean farmers in drought counties are probably experiencing financial stress;
- excess supply, which lowers farm commodity prices, can rapidly recur.

Commodity Prices and Receipts Up

Commodity prices will continue to provide strength to the farm sector in

1989. The index of prices received for all farm products is projected stable; a 2-percent increase in livestock prices will offset a slight fall in crop prices. Broad-based indexes of crop and livestock prices will be 20-30 percent higher than their lows in 1986.

Farm prices for most commodities and higher production will maintain receipts at 1988 levels or possibly increase them \$1-\$2 billion in 1989. While production gains could raise wheat and corn receipts as much as \$3 billion, soybean and cotton receipts may decline \$2 billion.

Despite a 5-8 percent gain in fed cattle prices, declining slaughter will hold cattle receipts stable. Poultry and egg receipts are likely to set a record at more than \$13 billion.

The livestock sector made a remarkable rebound in the mid-1980's. Livestock receipts in 1989 are forecast \$10 billion higher than in 1985. But, high crop prices translate into high feed costs that could dampen livestock net earnings. Lower hog-corn and steer-corn ratios suggest a more traditional balance among crop and livestock prices and receipts in 1989.

Farmers To Depend Less On Government Payments

Government direct payments to farmers in 1989 are forecast at \$10-\$12 billion. This is 25 percent lower in real terms (\$1982) than in 1988. Total Government outlays, including net CCC loans, will be down 50 percent (\$1982) from 1986, providing 7 percent of gross cash farm income in 1989. This more nearly approximates the 1960-84 average of 6 percent than the 1985-86 average of 13 percent.

More than 20 percent of direct Government payments in 1989 will be for the Conservation Reserve Program. Reflecting lower CCC stocks, use of generic certificates will be greatly reduced. CCC placements may slightly exceed redemptions.

The Government role in agriculture will be diminished in 1989, partially because of changes in farm legislation and the continuing focus on export markets. The trend to lower Government outlays has been accelerated by the supply-tightening impact of the drought.

The 1988-89 trend to lower commodity program payments is not necessarily representative of permanent gains in farm income and financial health. But, livestock receipts and earnings have surged as legislation has reduced CCC loan rates for feed grains.

In addition, the drop in farm debt and land prices in the mid-1980's and the rapid growth of exports in 1987-88 suggest that agriculture can now better compete in world markets.

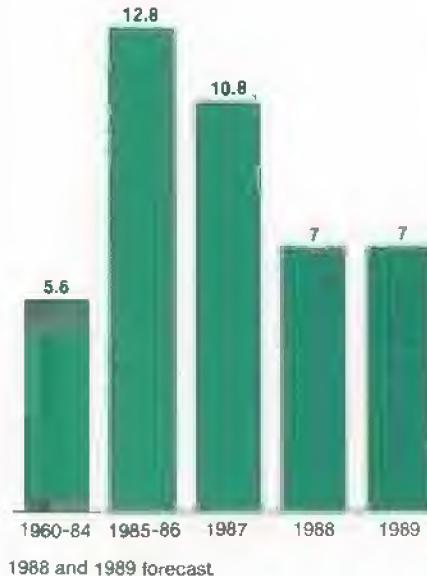
Moderate Rise Forecast For Farm Expenses

Farm expenses are projected to grow 4 to 6 percent in 1989. The cost of fertilizer, chemicals, and seed may rise 10 percent or more as planted acreage increases. Interest expenses will go up slightly for the second consecutive year, reflecting nearly stable interest rates and a slight increase in farm debt. Level feed costs are the key to moderate overall growth in farm expenses.

Marketing, storage, and transportation costs could rise 20-30 percent as production rebounds from the drought. Farmers with capital from large 1988 crop carryin or good summer production could substantially boost farm machinery purchases. Higher machinery purchases will

Government Payments Easing From Historic Hlghs

Percent of gross cash income



generate a slight increase in depreciation expenses, reversing a downward trend since 1982.

Net Farm Income Up 20 Percent; Net Cash Income Down

Net farm income, which includes inventory change and depreciation expenses, is forecast at \$44-\$48 billion in 1989, more than 20 percent above 1988. This range assumes a return to near-trend yields, plus additional production from 25-30 million more planted acres. After adjustment for inflation, net farm income will be the second highest since 1975.

In contrast, net cash income, forecast between \$48 and \$52 billion, will decline 10-15 percent as farmers have less grain to sell during the first 6-9 months of 1989, and 60-65 percent of the fall 1989 harvest will be inventoried in farmers' grain bins at the end of 1989.

These inventories are expected to be sold off by mid-1990. Farms will continue to generate substantial cash in 1989. Inflation-adjusted cash income will exceed 1981-84.

The critical period for many drought-stressed farmers will be next spring. They will have less corn, soybeans, and spring wheat to sell from storage and will face the prospect of larger planting expenses because of higher input costs and an increase in planted acreage. Despite Federal drought assistance, one lagged effect of the drought will be cash flow and loan repayment problems for many crop producers in the first half of 1989.

In terms of cash flow generated by production, farmers in 1989 will be less well off than in 1988. But, in terms of wealth generated by production (income plus inventory growth), farmers will be better off.

Financial Stress To Lessen In Northeast, South, and West

The number of commercial farms (those with sales of \$40,000 or more) that are financially vulnerable likely decreased slightly in 1988. Several factors are responsible:

- the rise in soybean prices more than offset lower soybean yields through much of the Corn Belt;

Farm Receipts & Expenses

	1986	1987	1988F	1989F
\$ billion				
LIVESTOCK RECEIPTS				
Cattle/calves	28.9	33.8	37	37
Hogs	9.7	10.3	9	10
Poultry/eggs	12.7	11.5	13	14
Dairy	17.8	17.8	17	18
Total	72	76	80	79-81
CROP RECEIPTS				
Wheat	4.9	4.9	6	7
Corn	12.5	8.8	9	10
Soybeans	9.2	9.6	13	12
Fruits/vegetables	22.2	23.5	24	25
Total	64	62	69	69-72
Percent change from year earlier				
EXPENSES				
Farm origin items	-5	8	21	1
Manufactured inputs	-19	-1	4	13
Interest charges	-9	-8	2	2
Repairs, labor, other	-7	2	0	8
Total	-9	1	8	5

F = forecast.

Balance Sheet of the Farm Sector 1/

Year	- - Current dollars - -			- - Deflated dollars - - (\$1982) 2/		
	Assets	Liabilities	Equity	Assets	Liabilities	Equity
	\$ billion			\$ billion		
1980-84	950	184	765	976	188	788
1985-86	720	165	555	641	147	494
1987	709	143	566	602	121	481
1988F	741	139	602	609	114	495
1989F	755-765	139-147	612-622	595-605	110-115	485-490

1/ Excludes operator households and CCC commodity loans.
2/ Deflated by the GNP implicit price deflator, 1982=100.

F = forecast.

Income Outlook

	1987	1988F	1989F
\$ billion			
Receipts	138	149	148-152
Direct Government payments	17	14	10-12
Cash expenses	103	111	115-118
Inventory change	-1	-9	8-10
Net farm income	46	39	44-48
Net cash income	57	57	48-52

F = forecast.

- real estate values remained generally stable to higher in the severe drought regions, providing a collateral cushion;
- many producers were able to stabilize their financial position.

Financial stress in 1989 will moderate again because of two additional factors: a better balance between crop and livestock returns (crop farmers gained relative to livestock farmers in 1988), and continuing substantial Government payments to farmers.

No large concentration of stress, such as occurred among cash grain producers in

the mid-1980's, appears in store for any major enterprise group in 1989. In addition, about 50 million Conservation Reserve Program and Government commodity program acres will be idled, providing a supply-stabilizing influence.

The upper Midwest, stretching from Ohio to the Dakotas, may experience heightened stress through the summer of 1989. But this likely will be offset nationally by reduced financial vulnerability in the West, South, and Northeast.

Farm Financial Position

To Continue Stable

The financial position of farmers in 1989 will continue to be stable in real terms, with the increase in farm net worth about matching the increase in inflation. Asset growth will be broad based. Livestock, machinery, and financial assets may post slight increases, averaging less than 5 percent. Land prices could rise 2-4 percent, following a 6-percent gain in 1988.

Farm debt likely will expand about \$2-\$5 billion in 1989, reversing a 5-year trend of annual debt reduction. In 1988, a slight increase in non-real estate debt was more than offset by declining real estate debt. Apparently, part of the higher-than-anticipated cash income of producers in areas not hard hit by the drought was used to retire debts.

Farm Credit System (FCS) loans should increase in 1989, as the system continues to rebound from the financial difficulties of the mid-1980's. This will mark the first annual increase for the FCS since 1982. By the end of 1989, the FCS should hold about 25 percent of all farm debt.

Farm debt held by banks is expected to increase \$1-\$3 billion in 1989; many rural banks report that funds available for loans may exceed local farmers' demand. Debt held by the Farmers Home Administration (FmHA) should decrease by at least \$2 billion, as the agency begins to restructure delinquent loans. As of September 30, 1988, over \$8 billion of FmHA loans were more than 1 year delinquent.

Lending for Real Estate Purchases Will Expand Slightly

Lending for farm real estate purchases could increase slightly in 1989, as stable or improving land values encourage farmers to expand their operations. While many sales will be for cash, lenders likely will offer favorable financing for foreclosure properties.

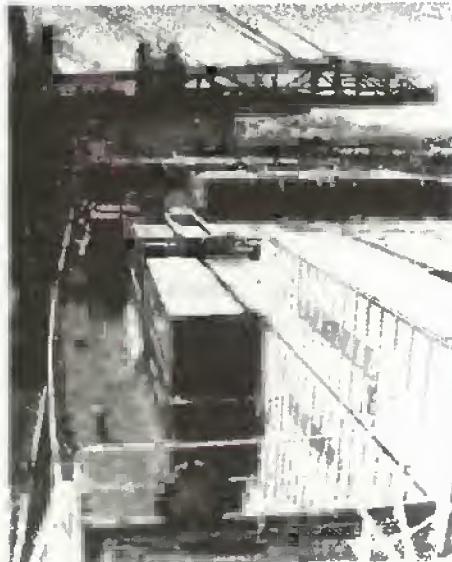
The secondary mortgage market for farm real estate loans should increase available farm real estate credit, as lenders write a portion of their loans to meet anticipated guidelines for sale to Farmer Mac.

Demand for non-real estate loans should grow as increases in planted acreage push up expenditures for most inputs. Non-real estate debt outstanding may increase \$2-\$3 billion in 1989.

The rates of return on farm assets and farm equity are expected to remain near 1988. The real rate of return on farm assets, which includes returns both from current income and from real capital gains, is estimated at 5 percent in 1988 and between 3 and 5 percent in 1989.

Real cash flow after interest (\$1982) was \$41 billion in 1988 and is forecast to fall to \$36-\$38 billion in 1989. However, the 1989 forecast remains markedly higher than the 1984-86 average of \$28 billion. Growth in real cash flow since the mid-1980's reflects shrinking capital expenditures, lower interest expenses, and decreased net loan repayments.

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World Agriculture and Trade

Remarks by Richard W. Goldberg, Acting Undersecretary for International Affairs and Commodity Programs, at USDA's Annual Agricultural Outlook Conference, December 1988.

World agricultural supplies in fiscal 1989 are considerably tighter than last year. The severe drought in North America had a pronounced impact.

Going into this season, global stocks of rice, wheat, and soybeans were all sharply smaller than a year before, while coarse grain stocks were down moderately. Only cotton stocks were up. Moreover, projected production levels in 1988/89 are not going to be enough in most cases to prevent further large stock drawdowns by the end of the year.

But while global oversupply has subsided, it could easily and quickly return. There still is a large capacity to overproduce, mostly overseas.

The United States has acreage reduction and conservation reserve programs that can be used when needed. At the moment, the U.S. needs to replenish crop reserves after last summer's drought. But overseas, there are production incentives of all kinds. In some cases, capacity is overexpanded.

For example, because of limited U.S. supplies, the EC this year is expanding grain

exports by some 6 to 8 million tons. EC export subsidies provide European farmers a tremendous incentive to produce.

The United States will have a problem with subsidized foreign exports unless it has the supply to be competitive. If U.S. prices are not competitive, other nations—especially the subsidizing ones—will expand their production to fill the gap.

On the demand side, foreign economic growth is expected to fall slightly from 1988's 3-percent rate, with developed economies likely to slow a little more than the developing economies. The most robust growth, 6 to 7 percent, will be in the Asian newly industrialized countries, but Latin America is expected to rebound from its recession to a modest growth rate of 1 to 1.5 percent.

With continued population pressures, the developing countries probably will need to maintain large imports of bulk agricultural commodities, although they also may require large amounts of credit.

In the developed market economies, as well as in the newly industrializing, export-oriented economies of the Pacific Rim, robust economic growth will support continued strong demand for high-value U.S. agricultural items.

Outlook Favorable in Most Key Markets

The outlook appears bright for farm sales in most of the United States' major markets. Japanese purchases of U.S. agricultural products are expected to climb by about \$1 billion in fiscal 1989, following a gain of \$1.7 billion in 1988.

U.S. grain sales to Japan are expected to remain large, and gains are likely in U.S. beef and orange exports following the agreement to open the Japanese market further. Sales of U.S. processed products should benefit from generally strong growth in the Japanese economy, plus further market-opening measures that resulted from the settlement of a GATT dispute over specific processed products.

In South Korea, another surge in U.S. agricultural sales is expected in fiscal 1989. The country is now the largest single-nation buyer of U.S. farm products after Japan. It should maintain

this status as increased feed demand and continued big exports of textiles and leather products sustain demand for U.S. agricultural products.

U.S. sales to Taiwan probably will remain close to fiscal 1988's record, as favorable exchange rates give an edge to U.S. high-value exports such as beef, turkey meat, fruit, nuts, and vegetables.

However, a substantial downturn is likely in U.S. exports of coarse grain and soybeans to Taiwan; they constitute nearly 60 percent of U.S. farm product exports to that country. Higher world prices, larger stocks in Taiwan, and smaller demand from the livestock and aquaculture industries are behind the projected decrease.

U.S. Sales to USSR Will Continue Large

In the Soviet Union, a smaller coarse grain crop, which more than offset increased wheat production, is providing the impetus for continued large imports of U.S. corn, oilseeds, and oilseed products.

However, U.S. wheat sales to the Soviets are not expected to match 1988's alltime high of 9 million tons. The United States and the USSR recently signed an extension of the Long-Term Grain Agreement, which will continue to stabilize grain trade between the two countries.

In China, rising incomes and population, coupled with a downturn in grain production in 1988, are expected to strengthen demand for food grain imports. Higher wheat prices could boost the value of total U.S. exports to China above \$800 million in fiscal 1989. The improvement in China's external balance of payments also is helping U.S. exports.

The value of U.S. agricultural exports to the EC may rise only slightly because of slower economic growth in Europe, larger EC grain and oilseed crops, further cuts in EC dairy production, and the proposed ban on imports of meat produced with hormones. U.S. exports are projected to remain near 1988's \$7.5 billion.

Canada, like the United States, suffered from drought in the summer of 1988. As a result, prospects look good for U.S. corn and soybean meal exports and possibly for some horticultural crops as well.

The outlook also is good in Mexico. Domestic production shortfalls and Mexico's austerity program to control inflation may induce larger agricultural imports in fiscal 1989, and U.S. sales could climb to around \$2 billion.

In other important markets in Latin America, U.S. agricultural exports to Venezuela are expected to remain fairly steady, after a sizable gain last year. In Brazil, sales are likely to remain weak after declining by more than half last year. Brazilian demand continues to be depressed by the country's limited purchasing power, and a bilateral grain agreement gives Argentina the edge in supplying whatever grain market exists.

GATT Reforms Are U.S. Priority

Ongoing negotiations in the GATT and bilateral negotiations with several key U.S. trading partners also will shape the trading environment.

In today's market, trade distortions—subsidies, production controls, and trade barriers—have become the rule rather than the exception. With governments worldwide thinking protectionism, tensions have heightened.

That is why reform of the troubled international trading system is one of the highest U.S. priorities in the ongoing GATT negotiations. The U.S. proposal for world reform of agricultural trade has three parts:

- the trading nations of the world should, by a certain date, eliminate direct and indirect subsidies that distort agricultural trade;
- all import barriers should be removed;
- health and sanitary regulations should be harmonized to ensure that they are based on scientifically justified needs and are not used as trade barriers.

Several other nations have made proposals to the GATT, many quite different from the U.S. commitment. The challenge is to reach agreement on a framework for discussions so that concrete, long-term progress can be made. Progress is needed on a timetable to achieve reforms, on what the reforms should be, and on how to measure improvement.

Closer to home, passage of the U.S.-Canadian Free Trade Agreement should strengthen and liberalize the important trade relationship between the U.S. and Canada. The agreement includes a commitment from the two countries to work together in the GATT for fairer trade worldwide. The agreement also provides U.S. and Canadian agricultural producers increased opportunities to market their products with no tariff barriers and fewer other barriers.

The United States has been working bilaterally with many other nations, including Korea, Taiwan, and the European Community, to remove obstacles to U.S. agricultural trade.

Ag Export Value May Rise \$1 Billion

U.S. agricultural export value should continue rising in fiscal 1989. Value is expected to grow \$1 billion to \$36.5 billion. World prices for wheat, corn, and soybeans are expected to be the highest since 1985. A \$2.5-billion increase expected for grain and feed exports will more than offset prospective declines for cotton and oilseeds.

The volume of exports is expected to fall 8 percent to 136 million tons. Export volume is forecast smaller as the U.S. share of world trade shrinks for drought-affected products.

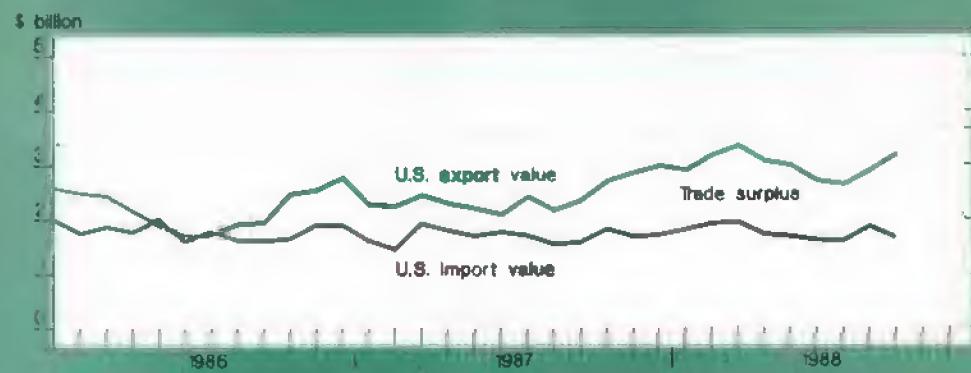
Exports of high-value products are expected to remain close to fiscal 1988's record \$16.4 billion, sustained by favorable exchange rates and relatively strong world economic growth. This is especially true for horticultural products. In fact, U.S. exports of horticultural products are forecast at a record \$4.1 billion, up \$400 million from last year.

U.S. agricultural imports are expected to match 1988's record \$21 billion. Imports of competitive products likely will fall for the first time since 1982. The U.S. agricultural trade surplus is expected to rise to \$15.5 billion in 1989, a \$1.7-billion increase.

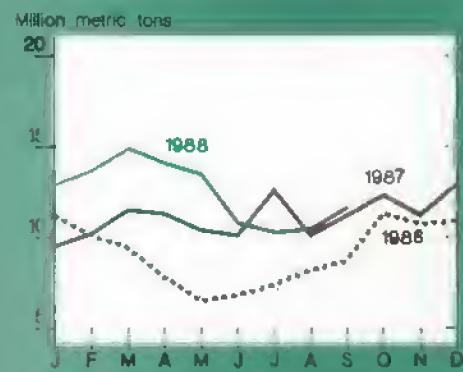
For U.S. agriculture, the challenge in the coming year will be to sustain the export momentum that has been regained over the past few years. This will require competitive prices, aggressive market development, persistent trade policy efforts, and market-oriented trade.

U.S. Agricultural Trade Indicators

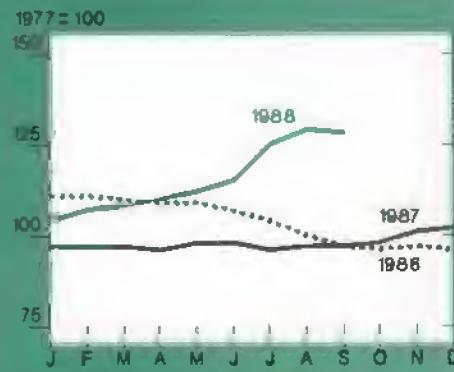
U.S. agricultural trade balance



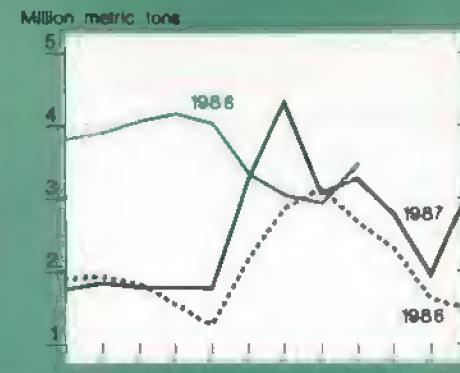
Export volume



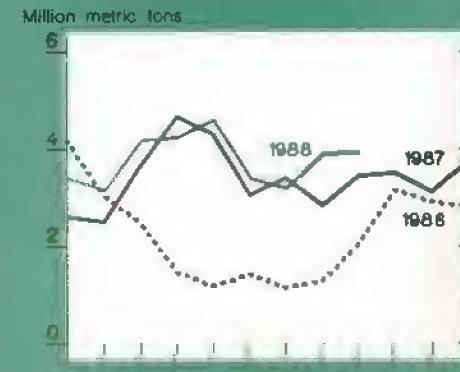
Index of export prices



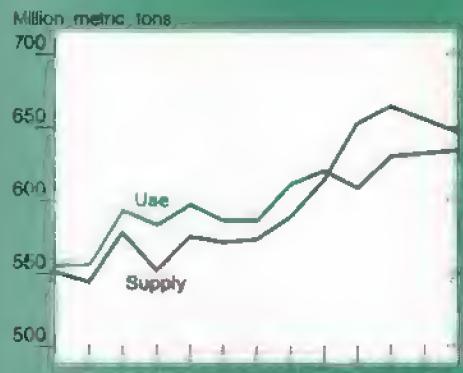
U.S. wheat exports



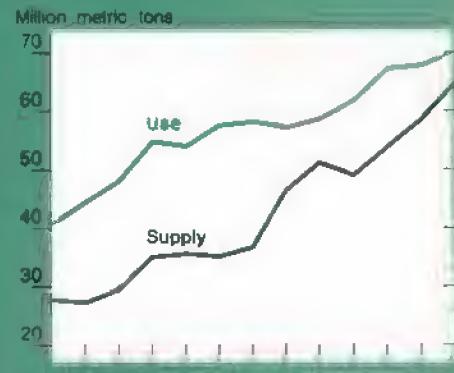
U.S. corn exports



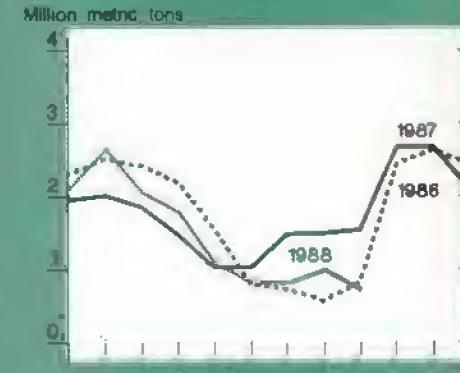
Foreign supply & use of coarse grains



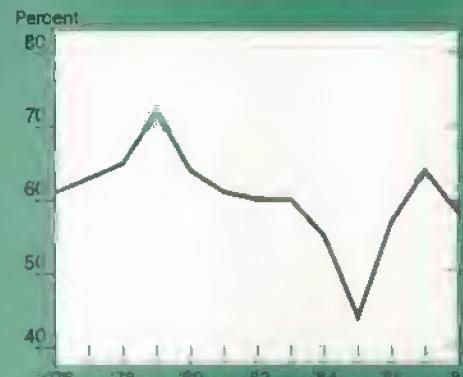
Foreign supply & use of soybeans



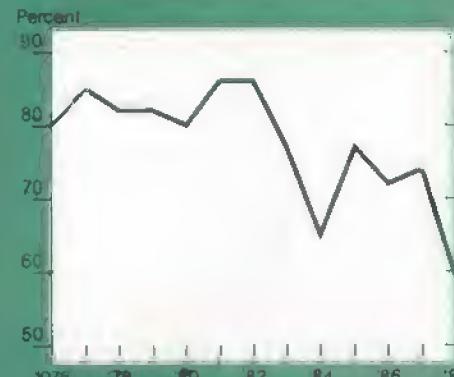
U.S. soybean exports



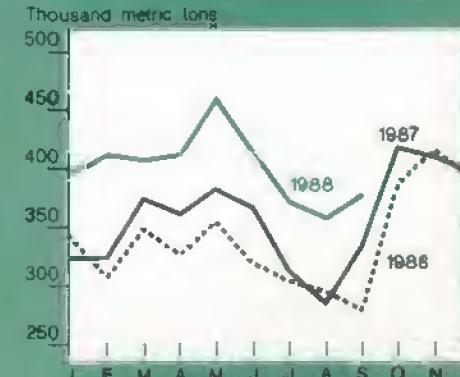
U.S. share of world coarse grains exports^{1,2}



U.S. share of world soybean exports^{1,2}



U.S. fruit & vegetable exports³



¹Excluding intra-EC trade

²October-September years

³Includes fruit juices



Resources

OUTLOOK FOR FARM INPUTS

Farmers are expected to spend \$115-\$118 billion for inputs in 1989, 4-6 percent above 1988. Growth in planted acreage likely will result in both greater input use and higher input prices.

Planted area, the major determinant of input use, is expected to rebound 25-30 million acres. Several factors are responsible: 1989 acreage reduction programs for wheat and feed grains have been reduced; paid land diversions have been eliminated; and with higher commodity prices, participation in farm programs may drop.

Because of heavy participation in commodity programs and the Conservation Reserve Program, planted acreage in 1987 and 1988 was the lowest in 16 years (excluding the atypical 1983). CRP area, which must remain out of production for 10 years, has grown to nearly 25 million acres. As a result, the rebound in planted acreage in 1989 likely will be smaller than in 1984, when planted acres rose 35 million from the year before.

Seed Use Will Expand

Seed use for the major field crops in 1989 likely will rise 10-15 percent from 1988. However, one survey reported that

because of the drought, domestic seed corn production in 1988 may have been 45 percent below expected levels. Off-season seed production from the southern U.S. and South America will supplement stocks from drought-stricken areas. However, some varieties may not be widely available.

Seed prices are expected to climb significantly. Following the 1983 drought, soybean and hybrid corn seed prices rose about 30 percent and 8 percent, respectively. Average hybrid corn seed prices likely will rise in 1989 for the first time in 4 years. USDA's prices paid index for seeds has remained stable since 1984, but it is likely to increase 5-10 percent in 1989.

In 1988, seed consumption of the eight major field crops was close to 5.9 million tons, down 18 percent from the 1981 record. Seeding rates were similar to 1981, but planted acres were down significantly.

Fertilizer, Pesticide Prices To Climb

With the acreage increase, fertilizer use in 1989 could exceed 21 million tons, up 7-10 percent from 1988. Fertilizer nutrient consumption stood at 19.2 million tons for 1987, only slightly less than the estimated 1988 consumption of 19.4-19.6 million tons.

Fertilizer prices will rise in 1989. Using as a guide the 1984 crop year, when acreage rebounded after the 1983 PIK program, price increases could approach 6 percent. Lower inventories than in 1983 and continued strong export demand will place upward pressure on prices for nitrogen and phosphate materials, while potash prices will rise from current highs.

Even if overall fertilizer prices climb as much as 11 percent from spring 1988, the nominal index of prices paid by farmers will not surpass the peaks of 1981, 1982, and 1984.

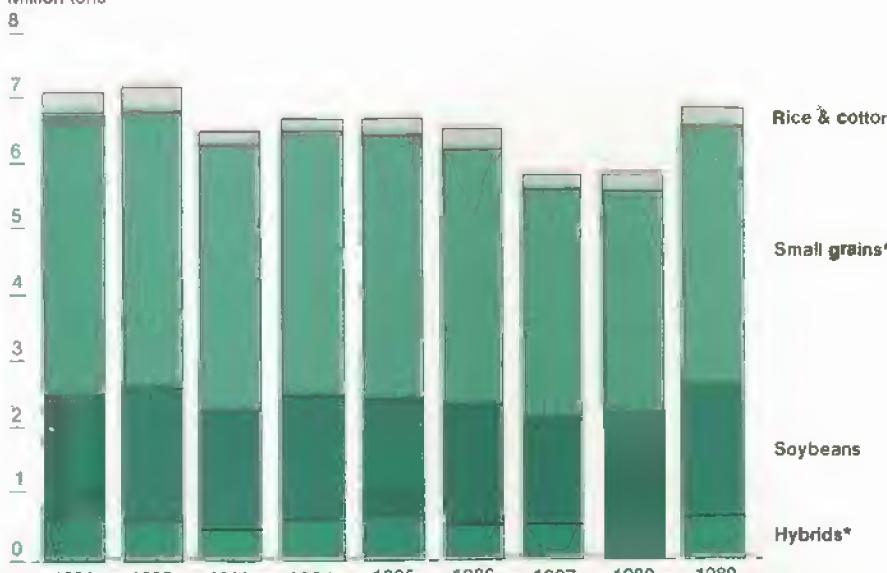
The drought appears to have had little effect on fertilizer consumption in 1988. Most fertilizer was applied between March and June, prior to first signs of serious drought. Some side-dressing was postponed, however, and continued dryness in the winter wheat belt may have cut some fall applications.

Pesticide use is expected to increase 5-7 percent in 1989 because of increased corn, soybean, and wheat acreage. The Environmental Protection Agency estimates annual agricultural use of pesticides to be around 800 million pounds of active ingredients, with changes directly linked to planted acreage.

Pesticide prices, measured by USDA's prices paid index for agricultural chemi-

Seed Use Will Climb In 1989

Million tons



*Hybrids include corn & grain sorghum; small grains include wheat, barley, & oats. 1989 forecast.

cals, are expected to rise. A 5-7 percent increase would raise the index to near 1984. The index went up in 1988, after dropping between 1984 and 1987.

As with fertilizer, the drought did not significantly affect herbicide use, since nearly 85 percent of the treatments were prior to plant emergence. The drought may have made some late-season insecticide applications uneconomical, such as on cotton, but it led to increased applications on corn, where dryness fostered spider mite infestations.

Continued dry conditions could create herbicide carryover problems next spring, requiring farmers to alter normal crop rotation patterns.

Credit Demand, Capital Expenditures To Increase

Increased credit demand in 1989, especially for operating capital, likely will lead to a modest expansion in farm debt. But the agricultural sector's 1989 debt-asset ratio is expected to fall as land values strengthen. Credit availability is unlikely to be a concern for most producers.

Farm debt fell more than 25 percent from 1984 to 1988, to an estimated \$140 billion. While much of the reduction occurred through repayment, an estimated \$10-\$12 billion was through forgiveness. Record levels of Government payments since 1985 may have contributed to farmers' ability to retire debt.

Capital expenditures in 1989 are expected to surpass those of 1988. Contributing factors include higher net farm income and a falling debt-asset ratio. Aging farm machinery and prospects for greater planted acreage also may increase capital spending. In addition, 1989 is likely to be the fifth consecutive year in which net cash income will approach or exceed \$50 billion.

The 1988 drought affected energy use in several ways. Fewer harvested acres, lower yields, and less moisture at harvest reduced energy needs for harvesting, drying, and transportation. However, the 1988 irrigation season was extended, increasing electricity and natural gas use. Still, energy use in 1988 likely was down 2-4 percent from a year earlier.

Energy Use To Grow Slightly

With planted acreage forecast up nearly 10 percent in 1989, energy use should rise slightly, offsetting declines due to greater fuel conservation.

Crude oil prices, which dictate diesel fuel prices, fell during 1988 and currently are the lowest since 1986. Although crude oil and diesel fuel prices are expected to be flat in 1989, they could be affected by geopolitical factors.

A greater proportion of agricultural labor is now coming from hired sources than from operators and unpaid family members. With increasing farm size, hired labor will continue to be a large and growing component of many farm operations.

The 1986 Immigration Reform and Control Act (IRCA), designed to prevent illegal aliens from working on U.S. farms, has injected some uncertainty into the labor market for 1989 and beyond.

IRCA's effect on labor availability, wage rates, and farm production ultimately will depend on the decisions of farm employers and workers, as well as the enforcement ability of the Immigration and Naturalization Service.

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Food and Marketing

1989 FOOD PRICES

Retail food prices will rise at about the same rate in 1989 as in 1988. Prices of eggs, fruit and vegetables, and cereal and bakery products will contribute most to the overall increase, while meat and poultry prices will dampen it somewhat. Strong consumer demand, fueled by increased disposable personal income, also will support higher food prices.

The drought's effect on the CPI for food in 1989 is difficult to measure. But, without the drought, meat production would be somewhat larger and 1989 meat prices would be slightly lower than currently forecast. The drought added about 0.5 percent to the food CPI in 1988.

The CPI for food in 1988 rose near the 1987 rate, about 4 percent. Food prices kept pace with prices of other goods and services in the general economy. Consumers, however, tend to be more aware of changes in food prices than of price changes for other goods. In 1988, this awareness was heightened by heavy media coverage of the drought and warnings of imminent food price inflation.

The major factors that influence retail food prices are farm prices, costs of processing and distributing food, and consumer demand. Drought and strong consumer demand pushed average farm prices for food commodities up 3.5 percent in 1988.

Charges for processing and distributing food increased about 5 percent, mainly because of higher costs for packaging materials, transportation, and labor. An approximate 3-percent rise in real disposable personal income buoyed consumer demand.

Red Meat and Poultry Supplies Will Remain Large

Total red meat and poultry supplies in 1989 will be second only to 1988. With lower production, beef prices are expected to be 1 to 3 percent above 1988. Pork prices will rise about the same as beef, but poultry prices are likely to decrease 4 to 7 percent as supplies continue to grow.

In 1988, retail beef prices rose about 5 percent, while pork prices were about 3 percent below the highs of 1987. Poultry prices advanced a little over 5 percent. Per capita meat and poultry consumption reached a record 220 pounds.

The CPI for cereals and bakery products in 1989 is expected to rise 4-7 percent from 1988. Strong consumer demand will continue to exert upward pressure on prices. A slightly greater rate of inflation in the general economy will push costs of processing and distributing food higher. Some lingering effects of the drought will be felt as higher grain and oilseed prices continue to influence consumer prices for both crop and meat products.

The CPI for cereals and bakery products rose an estimated 6.5 percent in 1988. Demand for cereal products has increased considerably in the past few years as health-conscious consumers find cereals a convenient source of nutrition.

Processing and distribution costs, which account for about 90 percent of the retail price of cereals and bakery products, have risen, led by higher prices for packaging materials. Finally, farm prices of some types of wheat increased 50 to 60 percent, largely because of the drought. Passed on to consumers, the rise in grain prices could add 5 to 6 percent to retail prices of bakery and cereal products.

Retail Food Prices

	1986	1987	1988	1989
Consumer Price Indexes	Percent change from a year earlier			
FOOD AT HOME	2.9	4.3	4.0	3 to 5
Meat, poultry and fish	4.3	6.4	3.2	0 to 3
Meat	3.2	7.1	2.0	1 to 3
Beef and veal	0.6	7.6	4.9	1 to 3
Pork	8.2	8.2	2.9	1 to 4
Poultry	7.5	1.5	6.6	-4 to -7
Fish and seafood	9.2	10.6	6.1	4 to 7
Eggs	6.9	5.9	5.2	15 to 20
Dairy products	0.2	2.5	2.0	2 to 4
Fats and oils	-2.2	1.5	4.1	3 to 6
Fruits and vegetables	0.9	8.8	7.3	3 to 6
Fresh fruits	2.1	11.3	7.8	6 to 9
Fresh vegetables	4.0	12.9	5.8	0 to 3
Processed fruits and vegetables	-1.6	3.5	8.1	4 to 7
Processed fruits	-2.9	4.1	10.6	4 to 7
Processed vegetables	-0.2	2.7	4.7	4 to 7
Sugar and sweets	3.2	1.8	2.7	4 to 7
Cereals and bakery products	2.8	3.5	6.4	4 to 7
Nonalcoholic beverages	5.9	-2.6	0.0	4 to 7
Other prepared foods	2.6	4.2	3.6	3 to 5
FOOD AWAY FROM HOME	3.9	4.0	3.9	4 to 6
ALL FOOD	3.2	4.1	4.0	3 to 5

1988 preliminary, 1989 forecast.

Fresh Vegetable Prices Should Be Stable

Vegetable production for the fresh market likely will expand in 1989 because of strong grower prices in 1988. Barring a winter freeze in Florida or another summer drought, fresh vegetable prices probably will not show much change from 1988. However, low stocks are likely to cause prices for canned vegetables to rise until late summer, when the new pack becomes available.

Fresh vegetable prices in 1988 averaged an estimated 6 percent above 1987. After sharply higher lettuce prices raised the fresh vegetable CPI early in the year, the drought drove up the index during the summer, when fresh vegetable prices normally show a seasonal decline.

Canned vegetable prices may have risen as much as 15 percent, largely because of severe drought in the upper Midwest, which is the major source of peas, snap beans, and sweet corn for canning.

Fresh fruit prices probably will rise again in 1989 because of strong domestic and export demand. Orange production for the fresh market will be larger, but increased exports to Japan could cut into domestic supplies, keeping prices strong. Apple prices will be higher because of a small 1988 crop. The CPI for fresh fruit

is expected to rise at about the same rate as in 1988, when it gained nearly 8 percent.

Apple prices through most of 1988 were below a year earlier. Higher prices for other noncitrus fruits, however, generally reflected slightly smaller supplies. Banana imports were down from 1987. Some shipments were returned because of insect infestations, and labor disruptions curtailed banana imports from Colombia.

Retail prices for frozen concentrated orange juice (FCOJ) likely will be stable in 1989 because of a larger orange crop this season, reducing the need for imports. In 1988, the CPI for processed fruit rose more than 10 percent, mainly because of higher FCOJ prices. Domestic supplies had to be supplemented by Brazilian FCOJ, which also bore a bigger price tag than in 1987.

The CPI for dairy products may rise 2-4 percent in 1989, a slightly higher rate than a year earlier. Export demand for nonfat dairy products will boost prices, while higher processing and distribution costs will raise prices of manufactured dairy products. The 1988 CPI for dairy products advanced only about 2 percent, dampening increases for other food products.

Market Basket Statistics

	1986	1987	1988	1989
Percent change from a year earlier				
Retail cost	2.1	5.0	4.4	3 to 5
Farm-to-retail spread	3.7	6.2	4.8	3 to 5
Farm value	-1.4	2.3	3.7	2 to 4

1988 preliminary, 1989 forecast.

Retail egg prices in 1989 could average 15-20 percent above 1988. Production is expected to fall, reflecting poor returns to producers. The CPI for eggs rose a little over 5 percent in 1988, in part because of reduced supplies prompted by higher feed grain prices. In addition, processor use rose, reducing supplies of cartoned table eggs, and export demand was strong.

The CPI for fats and oils could climb 3-6 percent in 1989, about the same as in 1988. Strong demand and higher processing and marketing costs will increase prices; vegetable oil supplies are expected to remain ample throughout the year.

In 1988, retail prices of margarine, salad oils, and cooking oils advanced 5-8 percent because of increased soybean oil prices. But, stable peanut butter prices helped hold down the overall rise in the fats and oils index.

Retail Price of Market Basket Rose 4.4 Percent in 1988

Market basket statistics represent the retail cost, the farm value, and the farm-to-retail price spread for a fixed market basket of domestically produced foods. The farm value of food—the share of the consumer dollar that goes to farmers—accounts for about 30 percent of the retail cost.

The retail cost of the market basket rose 4.4 percent in 1988. The rate of increase was greater than the CPI for food; the rise in the CPI was moderated by flat prices for nonalcoholic beverages, which are not included in the market basket. Contributing to the market basket increase was a 3.7-percent rise in the farm value of food and a 4.8-percent hike in the farm-to-retail price spread.

The farm value was boosted by food grain price increases resulting from the drought and strong demand for poultry. Lower prices for hogs and milk reduced the farm value of meats and dairy products, partially offsetting higher values for other food groups. The farm value is expected to rise again in 1989, led by higher prices for cattle, eggs, milk, grains, and fresh fruit.

The widening of the farm-to-retail price spread reflects greater use of and higher prices for marketing inputs such as labor, packaging, and transportation. The labor force increased in 1988, particularly at the retail level, where the addition of in-store deli and salad bars required extra workers.

The volume of packaging materials expanded to accommodate the many new products available in the cereals and prepared foods categories. The 1989 spread is expected to increase near 1988's gain. *(Ralph Parlett (202) 786-1870)*

Upcoming Releases from the Agricultural Statistics Board

The following list gives the release dates of the major Agricultural Statistics Board reports that will be issued by the time the March *Agricultural Outlook* comes off press.

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- 6 Hogs and Pigs
- Celery
- Dairy Products
- 9 Poultry Slaughter
- Vegetables
- Vegetables-Prelim.
- 11 Crop Production
- 13 Crop Production-Annual
- Winter Wheat and Rye Seedlings
- Grain Stocks
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- 17 Turkey Hatchery
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- 18 Milk Production
- 19 Noncitrus Fruits and Nuts-Annual
- Turkeys
- 24 Catfish
- Livestock Slaughter
- Cold Storage
- 26 Cattle on Feed
- Crop Values
- 27 Peanut Stocks and Processing

February

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- Catfish Production
- 6 Dairy Products
- Poultry Slaughter
- 7 Celery
- 8 Cattle
- Sheep and Goats
- 9 Crop Production
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- 15 Milk Production
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 Production costs: 1984-7/4, 8/15, 10/18 (crops, livestock); 1985-9/15; 1986-3/17, 11/18, 12/14; 1987-1-2/26, 5/16, 8/23, 11/18; 1988-11/24, 12/16
 Production credit associations (see Farm credit system)
 Productivity: 1987-3/21, 8/2, 10/12
 Prospective plantings, U.S. (see Spring plantings, U.S.)
 Rail line abandonments, bankruptcies (see Transportation)
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 Real estate, farm (see Farm real estate)
 Research, agricultural: 1988-9/27, 12/31
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 South Africa (see Southern Hemisphere)
 Southern Hemisphere: 1986-3/13 (Brazil), 9/15 (Argentina), 9/18 (Brazil), 11/15 (Australia & Argentina), 11/25 (South Africa) (see also Exports--Forecasts by regions)
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 Spring plantings, U.S.: 1984-8/2; 1985-7/2; 1988-5/8, 6/13 (corn vs soybeans)
 Storage capacity: 1986-7/10, 10/22; 1987-10/17
 Sub-Saharan Africa (see Africa; Drought, African; and Famine in Africa)
 Supply controls: 1987-5/29
 Sweeteners: 1987-6/17 (HFCS), 10/13 (sugar); 1988-5/16 (demand)
 Targeted Export Assistance: 1986-3/23, 11/11; 1988-5/20
 Tax reform: 1985-8/24; 1986-11/26, (new law), 12/15; 1987-10/23
 Tillage, conservation: 1984-5/20
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 Trade balances: 1985-7/16, 10/17; 1986-9/26, 10/16
 Trailer-on-flat-car shipping (see Transportation)
 Transportation--
 Barge: 1984-1-2/18, 7/20, 9/21; 1985-3/21, 6/19, 10/24; 1986-4/22; 1988-8/34, 11/21
 Deregulation, trucking and rail: 1984-1-2/17; 1985-3/21
 Ocean, ports: 1984-4/16, 10/16; 1986-11/23; 1987-4/14
 Produce shipping: 1986-7/21
 Rail: 1984-1-2/17, 6/20, 7/19, 9/21; 1985-3/21, 6/19, 10/24; 1986-4/22, 7/21, 8/27; 1988-8/34, 11/21 (see also Canada, new rail laws)
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NOTE: Each issue of *Agricultural Outlook* contains highlights of the situation and outlook for the following commodities--

- *Livestock*: cattle, hogs, broilers, eggs, turkeys, dairy
- *Crops*: wheat, rice, feed grains, oilseeds, cotton, peanuts, tobacco, sugar, vegetables, fruit

These commodity summaries are included in the "Agricultural Economy" section.

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Statistical Indicators

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1988					1989				
	I	II	III	IV F	Annual F	I F	II F	III F	Annual F	
Prices received by farmers (1977=100)	130	133	142	145	137	144	--	--	--	140
Livestock & products	148	148	151	151	150	151	--	--	--	153
Crops	112	117	132	138	125	137	--	--	--	125
Prices paid by farmers, (1977=100)	152	155	160	162	157	157	--	--	--	168
Production items	165	168	172	174	170	171	--	--	--	171
Commodities & services, interest, taxes, & wages										
Cash receipts (\$ bil) 1/	151	164	157	146	155	160	--	--	--	--
Livestock (\$ bil)	78	76	85	79	80	79	--	--	--	--
Crops (\$ bil)	67	82	66	61	69	75	--	--	--	--
Market basket (1982-84=100)	114	115	118	118	116	--	--	--	--	--
Retail cost	96	99	104	100	100	--	--	--	--	--
Farm value	123	123	126	128	125	--	--	--	--	--
Spread	30	30	30	30	30	--	--	--	--	--
Farm value/retail cost (%)										
Retail prices (1982-84=100)	116	117	120	120	118	121	123	--	--	--
Food	114	115	118	118	116	120	120	--	--	--
At home	120	121	123	123	122	125	127	--	--	--
Agricultural exports (\$ bil) 2/	9.4	8.7	8.7	9.5	35.3	10.0	10.0	6.5	36.5	
Agricultural imports (\$ bil) 2/	5.7	5.0	5.1	5.3	21.0	5.5	5.0	5.2	21.0	
Commercial production										
Red meat (mil lb)	9,665	9,682	10,138	10,210	39,695	9,663	9,395	9,482	38,250	
Poultry (mil lb)	4,986	5,209	5,212	5,215	20,622	5,090	5,395	5,630	21,450	
Eggs (mil doz)	1,464	1,415	1,410	1,445	5,734	1,420	1,385	1,390	5,625	
Milk (bil lb)	36.1	37.8	36.1	35.3	145.3	35.9	38.0	36.3	145.8	
Consumption, per capita										
Red meat and poultry (lb)	53.7	54.3	55.0	57.1	220.1	53.5	53.4	54.3	217.9	
Corn beginning stocks (mil bu) 3/	9,768.5	7,635.2	5,835.5	4,259.6	--	--	--	--	--	
Corn use (mil bu) 3/	2,134.2	1,801.3	1,576.9	2,188.5	--	--	--	--	--	
Prices 4/										
Choice steers--Omaha (\$/cwt)	68.28	72.81	66.92	69-70	69-70	67-73	75-81	74-80	71-77	
Barrows and gilts--7 mkt. (\$/cwt)	44.74	45.90	44.24	38-39	43-44	41-47	44-50	43-49	42-48	
Broilers--12-city (cts/lb)	65.4	55.6	66.1	56-57	55-56	50-56	53-59	53-59	51-57	
Eggs--NY Gr. A Large (cts/doz)	55.0	53.3	72.9	64-65	61-62	59-65	57-63	69-75	65-71	
Milk--all at plant (\$/cwt)	12.23	11.43	11.87	13.00-	12.10-	12.25-	11.65	11.65-	11.95-	
Wheat--Kansas City HRW (\$/bu)	3.20	3.38	3.86	--	13.30	12.20	12.95	12.35	12.45	12.75
Corn--Chicago (\$/bu)	1.95	2.29	2.84	--	--	--	--	--	--	
Soybeans--Chicago (\$/bu)	6.14	7.01	8.38	--	--	--	--	--	--	
Cotton--Avg. spot mkt. (cts/lb)	59.1	61.5	54.6	--	--	--	--	--	--	
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	
Gross cash income (\$ bil)	146.0	150.6	150.4	155.2	156.8	152.0	160.4	160	165-169	
Gross cash expenses (\$ bil)	113.2	112.8	113.5	116.6	110.2	100.6	103.3	111	115-118	
Net cash income (\$ bil)	32.8	37.8	36.9	38.7	46.6	51.4	57.1	57	48-52	
Net farm income (\$ bil)	26.9	23.5	12.7	32.2	32.3	37.5	46.3	39	44-48	
Farm real estate values (1977=100) 5/	158	157	148	146	128	112	103	106	--	

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Dec.-Feb. first quarter; Mar.-May second quarter; June-Aug. third quarter; Sept.-Nov. fourth quarter; Sept.-Aug. annual. Use includes exports and domestic disappearance. 4/ Simple averages. 5/ Nominal values as of February 1. F = forecast. -- = not available.

U.S. and Foreign Economic Data

Table 2.—U.S. Gross National Product & Related Data

	Annual			1987		1988		
	1985	1986	1987	III	IV	I	II	III R
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	4,014.9	4,240.3	4,526.7	4,568.0	4,662.8	4,724.5	4,823.8	4,909.2
Personal consumption expenditures	2,629.0	2,807.5	3,012.1	3,058.2	3,076.3	3,128.1	3,194.6	3,261.5
Durable goods	372.2	406.5	421.9	441.4	422.0	437.8	449.8	451.8
Non durable goods	911.2	943.6	997.9	1,006.6	1,012.4	1,016.2	1,036.6	1,061.9
Clothing & shoes	156.4	167.0	178.2	180.4	181.2	180.5	183.2	188.5
Food & beverages	471.6	501.0	526.4	528.4	530.9	535.9	546.3	559.6
Services	1,345.6	1,457.3	1,592.3	1,610.2	1,641.9	1,674.1	1,708.2	1,747.7
Gross private domestic investment	643.1	665.9	712.9	702.8	764.9	763.4	758.1	771.4
Fixed investment	631.8	650.4	673.7	688.3	692.9	698.1	714.4	723.0
Change in business inventories	11.3	15.5	39.2	14.5	72.0	65.3	43.7	48.4
Net exports of goods & services	-78.0	-104.4	-123.0	-125.2	-125.7	-112.1	-90.4	-82.4
Government purchases of goods & services	820.8	871.2	924.7	932.2	947.3	945.2	961.6	958.7
1982 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	3,618.7	3,721.7	3,847.0	3,865.3	3,923.0	3,956.1	3,985.2	4,010.9
Personal consumption expenditures	2,354.8	2,455.2	2,521.0	2,545.2	2,531.7	2,559.8	2,579.0	2,604.5
Durable goods	355.1	385.0	390.9	406.5	387.6	401.1	410.6	409.5
Non durable goods	847.4	879.5	890.5	891.9	890.5	892.7	893.6	905.5
Clothing & shoes	147.2	157.6	160.5	162.9	160.3	159.6	156.3	164.2
Food & beverages	435.5	448.0	450.4	449.4	449.2	451.4	453.2	454.3
Services	1,152.3	1,190.7	1,239.5	1,246.8	1,253.6	1,265.9	1,274.8	1,289.5
Gross private domestic investment	637.0	643.5	674.8	667.9	724.7	728.9	715.1	723.8
Fixed investment	628.7	628.1	640.4	654.9	657.6	662.9	679.7	687.1
Change in business inventories	9.1	15.4	34.4	13.0	67.1	66.0	35.3	36.7
Net exports of goods & services	-104.3	-137.5	-128.9	-130.7	-126.0	-109.0	-92.6	-95.2
Government purchases of goods & services	731.2	760.5	780.2	782.9	792.6	776.4	783.8	777.8
GNP implicit price deflator % change	3.0	2.7	3.3	3.1	2.4	1.7	5.5	4.7
Disposable personal income (\$ bil)	2,838.7	3,019.6	3,209.7	3,224.9	3,315.8	3,375.6	3,421.5	3,506.0
Disposable per. income (1982 \$ bil)	2,542.8	2,640.9	2,686.3	2,683.9	2,728.9	2,762.3	2,762.2	2,799.8
Per capita disposable per. income (\$)	11,861	12,496	13,157	13,204	13,543	13,760	13,919	14,225
Per capita dis. per. income (1982 \$)	10,625	10,929	11,012	10,989	11,145	11,260	11,237	11,360
U.S. population, total, incl. military abroad (mil)	239.3	241.6	243.9	244.2	244.8	245.3	245.8	246.5
Civilian population (mil)	237.0	239.4	241.7	242.0	242.6	243.1	243.6	244.2
	Annual			1987		1988		
	1985	1986	1987	Oct	July	Aug	Sept	Oct P
Monthly data seasonally adjusted								
Industrial production (1977=100)	123.7	125.1	129.8	132.5	138.0	138.4	138.7	139.2
Leading economic indicators (1967=100)	168.6	179.3	189.5	192.1	192.4	193.4	192.9	193.0
Civilian employment (mil. persons)	107.2	109.6	112.4	113.2	115.1	115.2	115.3	115.5
Civilian unemployment rate (%)	7.2	7.0	6.2	6.0	5.4	5.6	5.4	5.3
Personal income (\$ bil annual rate)	3,325.3	3,531.1	3,780.0	3,897.2	4,073.7	4,090.5	4,112.9	4,185.0
Money stock-M2 (daily avg) (\$ bil) 1/	2,562.6	2,807.7	2,901.0	2,894.5	3,025.8	3,031.6	3,034.2	3,037.4
Three-month Treasury bill rate (%)	7.48	5.98	5.82	6.40	6.73	7.02	7.23	7.34
AAA corporate bond yield (Moody's) (%)	11.37	9.02	9.38	10.52	9.96	10.11	9.82	9.51
Housing starts (thou) 2/	1,742	1,805	1,621	1,538	1,477	1,461	1,449	1,554
Auto sales at retail, total (mil)	11.0	11.4	10.3	9.2	10.7	10.6	10.6	9.8
Business inventory/sales ratio	1.55	1.55	1.51	1.50	1.50	1.50	1.51	--
Sales of all retail stores (\$ bil)	115.0	121.2	125.5	127.0	134.3	134.8	134.4 P	135.6
Non durable goods stores (\$ bil)	71.8	73.9	76.9	79.9	83.6	84.5	84.8 P	85.6
Food stores (\$ bil)	23.7	24.6	25.3	26.3	27.7	28.1	28.1 P	28.4
Eating & drinking places (\$ bil)	11.1	12.1	12.7	12.4	13.1	13.2	13.4 P	13.4
Apparel & accessory stores (\$ bil)	6.2	6.7	7.1	6.6	6.9	7.0	7.1 P	7.2

1/ Annual data as of December of the year listed. 2/ Private, including farm. R = revised. P = preliminary. -- = not available.

Information contact: James Malley (202) 786-1782.

Table 3.—Foreign Economic Growth, Inflation, & Export Earnings

	Average 1970-74	Average 1975-79	1980	1981	1982	1983	1984	1985	1986	1987 P	1988 F	1989 F
Annual percent change												
Total foreign												
Real GNP	5.5	3.7	2.6	1.6	1.7	2.0	3.2	3.0	2.7	2.9	3.3	2.8
CPI	10.2	14.0	16.9	15.6	14.4	18.4	22.5	21.6	11.5	16.4	30.3	37.3
Export earnings	27.6	14.6	22.2	-2.7	-7.0	-2.6	5.6	1.6	11.9	18.9	9.6	6.6
Developed less U.S.												
Real GNP	4.8	3.1	2.4	1.4	1.1	1.9	3.4	3.3	2.4	3.0	3.6	2.5
CPI	8.4	9.4	10.9	9.6	8.0	6.0	5.1	4.7	2.8	2.7	2.9	3.4
Export earnings	23.9	14.9	17.0	-3.3	-4.3	-0.5	6.3	4.6	19.4	17.5	15.7	4.8
Centrally planned												
Real GNP	5.1	3.5	1.5	2.1	2.7	3.4	3.7	2.9	3.9	2.6	3.1	3.3
Export earnings	19.4	16.1	16.5	3.4	6.0	8.2	1.5	-5.1	7.3	6.7	7.7	8.0
Latin America												
Real GNP	7.4	5.1	5.3	0.7	-0.5	-2.7	3.3	3.6	3.7	2.3	-0.5	1.4
CPI	23.5	53.7	61.3	64.9	72.6	126.2	174.1	179.4	86.1	136.8	280.5	350.8
Export earnings	28.2	12.8	30.1	5.3	-10.0	-0.8	6.7	-7.7	-14.1	8.7	9.7	7.0
Africa & Middle East												
Real GNP	8.9	6.4	1.3	0.0	1.4	0.1	1.1	0.0	-1.2	1.8	2.6	3.3
CPI	8.7	16.4	24.6	17.3	12.9	16.7	19.4	11.2	11.6	15.7	17.9	17.6
Export earnings	50.9	13.2	37.9	-9.2	-19.7	-17.5	-7.0	-6.9	-14.6	15.9	-1.3	4.2
Asia												
Real GNP	6.0	6.8	6.3	6.6	3.6	6.6	5.4	6.0	5.8	5.9	7.3	6.1
CPI	13.0	8.4	16.4	14.1	7.3	7.7	8.5	5.2	4.5	5.4	6.7	7.1
Export earnings	28.9	18.6	27.8	6.8	-0.3	3.4	13.7	-1.2	5.9	28.1	25.2	13.3

P = preliminary. F = forecast.

Information contact: Timothy Baxter (202) 786-1706.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1987			1988				
	1985	1986	1987	Nov	June	July	Aug	Sept	Oct R	Nov P	
					1977=100						
Prices received											
All farm products	128	123	127	132	137	141	144	144	143	142	
All crops	120	107	106	130	127	133	135	135	133	133	
Food grains	133	109	103	113	138	143	147	151	154	155	
Feed grains & hay	122	98	85	88	127	142	138	137	136	131	
Feed grains	122	96	81	84	126	141	137	134	133	126	
Cotton	93	91	98	107	101	97	87	86	89	89	
Tobacco	153	138	129	130	126	126	129	140	143	145	
Oil-bearing crops	84	77	79	83	117	122	119	119	114	110	
Fruit, all	180	170	182	236	179	161	181	186	189	177	
fresh market 1/	192	178	193	258	191	171	196	202	205	190	
Commercial vegetables	129	130	146	212	116	126	147	139	122	149	
Fresh market	122	123	147	237	110	122	148	139	118	153	
Potatoes & dry beans	124	114	127	93	115	151	154	156	129	151	
Livestock & products	136	138	146	143	147	147	152	153	152	151	
Meat animals	142	145	163	157	168	163	168	167	165	163	
Dairy products	131	129	129	133	116	117	122	128	134	136	
Poultry & eggs	119	128	107	104	114	136	137	139	132	129	
Prices paid											
Commodities & services,											
Interest, taxes, & wage rates	163	159	162	--	--	172	--	--	174	--	
Production items	151	144	147	--	--	160	--	--	162	--	
Feed	116	108	103	--	--	147	--	--	142	--	
Feeder livestock	154	153	179	--	--	180	--	--	196	--	
Seed	153	148	148	--	--	150	--	--	150	--	
Fertilizer	135	124	118	--	--	132	--	--	134	--	
Agricultural chemicals	128	127	124	--	--	127	--	--	127	--	
Fuels & energy	201	162	161	--	--	166	--	--	162	--	
Farm & motor supplies	146	144	144	--	--	147	--	--	152	--	
Autos & trucks	193	198	208	--	--	216	--	--	215	--	
Tractors & self-propelled machinery	178	174	174	--	--	179	--	--	188	--	
Other machinery	183	184	185	--	--	199	--	--	203	--	
Building & fencing	136	136	137	--	--	138	--	--	139	--	
Farm services & cash rent	150	145	146	--	--	150	--	--	150	--	
Interest payable per acre on farm real estate debt	237	219	207	--	--	193	--	--	193	--	
Taxes payable per acre on farm real estate	133	134	136	--	--	138	--	--	138	--	
Wage rates (seasonally adjusted)	154	160	167	--	--	174	--	--	174	--	
Production items, interest, taxes, & wage rates	157	150	152	--	--	162	--	--	164	--	
Ratio, prices received to prices paid 2/	79	77	78	80	82	82	84	82	83	82	
Prices received (1910-14=100)	585	561	578	601	627	642	657	658	653	650	
Prices paid, etc. (Parity index) (1910-14=100)	1,120	1,096	1,115	--	--	1,182	--	--	1,198	--	
Parity ratio (1910-14=100) 2/	52	51	52	--	--	54	--	--	55	--	

1/ Fresh market for noncitrus; fresh market and processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio derived using the most recent prices paid index. Prices paid data is quarterly and will be published in January, April, July, and October. R = revised. P = preliminary. -- = not available.

Information contact: National Agricultural Statistics Service (202) 447-5446.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1987		1988					
	1985	1986	1987	Nov	June	July	Aug	Sept	Oct R	Nov P	
Crops											
All wheat (\$/bu)	3.20	2.71	2.55	2.69	3.36	3.50	3.61	3.75	3.84	3.90	
Rice, rough (\$/cwt)	7.85	5.04	4.49	7.08	7.29	7.51	7.42	6.82	6.75	6.38	
Corn (\$/bu)	2.49	1.96	1.56	1.61	2.41	2.72	2.65	2.60	2.58	2.46	
Sorghum (\$/cwt)	3.97	3.11	2.56	2.69	4.13	4.56	4.39	4.24	4.17	3.88	
All hay, baled (\$/ton)	69.93	61.64	62.90	62.10	76.80	83.10	83.10	85.50	86.80	87.50	
Soybeans (\$/bu)	5.42	5.00	5.08	5.36	8.14	8.50	8.33	7.94	7.53	7.27	
Cotton, Upland (cts/lb)	56.1	55.0	59.4	65.6	61.2	58.6	52.6	51.8	53.9	53.9	
Potatoes (\$/cwt)	3.92	5.03	4.47	3.62	4.23	5.70	5.92	4.97	4.50	5.50	
Lettuce (\$/cwt)	10.90	11.90	14.70	43.40	10.70	7.62	13.20	11.10	11.40	12.60	
Tomatoes (\$/cwt)	24.10	25.10	26.00	45.40	24.80	31.00	38.90	31.90	21.70	40.60	
Onions (\$/cwt)	9.08	10.90	12.50	9.37	8.49	11.50	8.09	10.40	9.02	9.37	
Dry edible beans (\$/cwt)	17.60	19.10	14.90	14.00	21.00	27.50	26.00	27.00	29.00	30.10	
Apples for fresh use (cts/lb)	14.7	19.8	19.4	11.6	10.9	19.7	26.1	25.1	20.8	18.9	
Pears for fresh use (\$/ton)	349.00	369.00	225.00	190.00	526.00	410.00	383.00	418.00	406.00	373.00	
Oranges, all uses (\$/box) 2/	7.41	4.42	4.55	8.52	7.76	4.11	4.92	4.17	5.48	5.82	
Grapefruit, all uses (\$/box) 2/	4.01	4.29	5.00	6.37	2.89	4.74	4.09	7.34	7.57	4.77	
Livestock											
Beef cattle (\$/cwt)	53.96	52.84	61.37	62.00	65.00	63.20	65.90	67.20	67.10	67.10	
Calves (\$/cwt)	62.43	60.89	78.05	82.90	84.90	87.70	90.90	89.00	87.80	88.10	
Hogs (\$/cwt)	44.16	49.68	51.65	40.60	47.10	44.10	44.70	40.70	38.70	36.00	
Lambs (\$/cwt)	68.08	69.10	77.93	65.70	60.20	60.00	59.80	64.30	66.20	65.10	
All milk, sold to plants (\$/cwt)	12.75	12.50	12.54	12.90	11.30	11.40	11.80	12.40	13.00	13.20	
Milk, manuf. grade (\$/cwt)	11.72	11.46	11.37	11.80	10.30	10.40	10.90	11.60	12.30	12.40	
Broilers (cts/lb)	30.1	34.5	28.8	26.3	36.7	42.1	41.9	39.2	37.5	35.0	
Eggs (cts/doz) 3/	57.1	61.6	54.9	53.6	45.7	57.8	58.1	63.8	58.7	59.4	
Turkeys (cts/lb)	47.2	44.4	34.3	34.0	31.6	39.4	41.6	45.7	47.8	47.6	
Wool (cts/lb) 4/	62.6	64.3	87.1	84.1	161.0	133.0	128.0	111.0	135.0	116.0	

1/ Calendar year averages, except for potatoes, dry edible beans, apples, oranges, and grapefruit, which are crop years.

2/ Equivalent on-tree returns. 3/ Average of all eggs sold by producers including hatching eggs and eggs sold at retail.

4/ Average local market price, excluding incentive payments. R = revised. P = preliminary.

Information contact: National Agricultural Statistics Service (202) 447-5446.

Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual		1988							
	1987	Oct	1988							
			Mar	Apr	May	June	July	Aug		
1982-84=100										
Consumer price index, all items	113.6	115.3	116.5	117.1	117.5	118.0	118.5	119.0	119.8	
Consumer price index, less food	113.6	115.5	116.6	117.2	117.6	118.1	118.4	118.9	119.7	
All food										
Food away from home	113.5	114.3	115.9	116.6	117.0	117.6	118.8	119.4	120.2	
Food at home	117.0	118.3	120.2	120.7	121.0	121.5	122.1	122.5	123.0	
Meats 1/	111.9	112.4	113.9	114.6	115.1	115.8	117.3	118.1	119.0	
Beef & veal	109.6	111.8	110.9	110.8	111.7	113.8	113.4	113.2	113.4	
Pork	106.3	107.8	109.8	110.5	111.7	114.1	113.4	112.7	113.7	
Poultry	115.9	119.0	112.6	111.4	111.7	114.6	114.3	114.1	113.7	
Fish	112.6	111.8	109.1	110.2	114.0	120.1	129.0	131.7	133.4	
Eggs	129.9	131.4	136.0	139.3	136.1	136.0	138.1	137.9	136.0	
Dairy products 2/	91.5	91.4	87.9	85.0	81.8	83.6	95.1	104.2	103.1	105.5
Fats & oils 3/	105.9	106.9	107.2	107.1	107.4	107.2	107.6	108.2	108.9	109.9
Fresh fruit	108.1	107.4	110.3	110.3	111.2	111.5	112.6	114.9	115.9	117.1
Processed fruit	132.0	135.7	133.8	139.9	146.6	143.6	147.8	150.1	153.3	149.7
Fresh vegetables	110.6	111.5	119.4	122.1	121.8	123.5	123.0	123.4	123.8	124.3
Potatoes	121.6	112.5	125.6	127.5	124.5	121.8	127.0	125.9	132.1	129.4
Processed vegetables	101.9	108.5	111.2	114.7	122.2	125.7	132.0	124.8	125.2	
Cereals & bakery products	107.1	107.5	107.9	108.4	108.6	110.0	111.3	113.9	116.4	117.9
Sugar & sweets	114.8	115.6	118.9	119.8	120.3	120.8	122.1	124.0	124.7	125.6
Beverages, nonalcoholic	107.5	106.7	107.7	107.8	107.5	107.1	107.2	107.0	107.4	108.1
Apparel commodities less footwear	109.6	115.2	113.7	116.6	115.7	113.6	111.3	111.3	117.0	119.9
Footwear	105.1	107.3	107.3	109.4	109.7	109.2	108.2	107.4	112.2	115.9
Tobacco & smoking products	133.6	136.3	142.8	142.9	143.2	143.6	147.5	148.6	148.9	149.3
Beverages, alcoholic	114.1	115.2	117.4	118.0	118.2	118.7	119.2	119.3	119.6	119.8

1/ Beef, veal, lamb, pork, and processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ralph Parlett (202) 786-1870.

Table 7.—Producer Price Indexes: U.S. Average (Not Seasonally Adjusted)

	Annual			1987		1988					
	1985	1986	1987	Oct	May	June	R	July	Aug	Sept	Oct
	1982=100										
	104.6	103.2	105.3	106.2	107.5	107.7		108.5	108.8	108.6	109.3
Finished goods 1/	104.6	103.2	105.3	106.2	107.5	107.7		108.5	108.8	108.6	109.3
Consumer foods	104.6	107.2	109.5	109.7	111.2	112.3		113.7	113.6	115.2	114.6
Fresh fruit	108.1	112.9	112.0	115.2	113.6	114.9		115.0	108.7	119.0	109.4
Fresh & dried vegetables	99.4	97.8	103.7	91.7	92.3	90.6		104.7	103.2	117.7	111.9
Dried fruit	88.7	91.9	95.0	94.6	99.3	99.3		99.3	99.3	101.0	97.3
Canned fruit & juice	113.8	111.0	115.3	116.4	119.9	119.9		120.2	120.2	120.5	120.6
Frozen fruit & juice	118.5	103.0	113.3	113.0	130.9	130.2		130.5	130.9	130.6	130.6
Fresh veg. excl. potatoes	100.3	99.3	99.0	89.6	88.5	86.6		96.9	94.3	110.4	101.0
Canned veg. & juices	101.9	101.2	103.5	102.9	103.2	103.1		107.9	111.8	111.6	114.6
Frozen vegetables	106.5	106.6	107.3	107.2	106.5	106.4		107.1	109.2	109.6	110.4
Potatoes	101.2	104.0	120.1	106.8	100.5	89.9		104.2	108.8	129.7	134.6
Eggs	95.6	99.5	87.6	81.1	70.8	77.1		92.2	105.5	102.1	107.4
Bakery products	113.9	116.6	118.4	120.0	124.5	125.6		126.0	126.8	129.7	130.1
Meats	90.9	93.9	100.4	102.1	102.2	104.4		101.5	99.4	101.4	98.2
Beef & veal	90.3	88.1	95.5	95.0	102.8	104.0		101.0	98.4	103.8	102.4
Pork	89.1	99.9	104.9	110.0	100.4	104.6		101.2	98.6	96.5	88.8
Processed poultry	110.4	116.7	103.4	97.5	105.6	112.3		124.6	122.2	123.1	122.5
Fish	114.6	124.9	140.0	148.2	150.8	147.9		152.0	152.1	154.0	155.1
Dairy products	100.2	99.9	101.6	102.1	100.1	100.6		101.2	102.1	103.8	104.8
Processed fruits & vegetables	107.9	104.9	108.6	108.4	111.7	111.6		113.4	115.1	115.2	116.3
Shortening & cooking oil	123.9	103.3	103.9	105.3	116.0	119.8		129.5	127.6	124.0	121.0
Consumer finished goods less foods	103.3	98.4	100.6	101.9	103.0	102.8		103.7	104.1	103.0	104.0
Beverages, alcoholic	107.6	110.1	110.3	110.1	111.6	111.8		111.8	112.2	111.9	112.6
Soft drinks	107.7	109.5	111.8	112.8	114.2	113.7		113.2	113.9	114.3	114.9
Apparel	105.0	106.3	108.3	109.3	111.0	111.7		112.2	112.1	112.6	112.6
Footwear	104.7	106.8	109.3	110.9	114.2	114.8		115.5	116.0	116.4	116.5
Tobacco products	132.5	142.4	154.6	157.5	166.8	166.8		175.4	175.4	175.4	175.5
Intermediate materials 2/	102.6	99.1	101.5	103.1	106.3	107.4		108.2	108.4	108.7	108.6
Materials for food manufacturing	101.4	98.4	100.8	101.9	104.0	106.9		109.9	108.8	109.6	108.2
Flour	99.8	94.5	92.9	94.5	97.2	110.3		110.0	111.6	114.2	115.2
Refined sugar 3/	102.8	103.2	106.4	107.1	106.6	106.9		108.1	109.0	108.7	111.5
Crude vegetable oils	137.5	84.8	84.2	86.6	114.1	124.1		148.6	134.9	127.3	115.2
Crude materials 4/	95.8	87.7	93.7	95.3	97.2	97.9		97.0	97.3	96.6	95.8
Foodstuffs & feedstuffs	94.8	93.2	96.2	96.1	104.7	108.6		109.9	110.1	111.5	111.4
Fruits & vegetables 5/	102.6	103.9	106.8	101.5	101.2	100.8		108.7	105.1	117.7	110.3
Grains	96.1	79.2	71.1	72.8	82.9	103.4		111.5	109.9	112.9	113.8
Livestock	89.1	91.8	102.0	102.6	111.8	106.1		99.1	99.9	99.7	101.2
Poultry, live	117.8	129.6	101.2	88.5	112.2	130.4		156.4	145.1	142.7	141.0
Fibers, plant & animal	97.4	88.3	106.4	108.9	103.7	107.6		99.4	98.7	89.6	89.7
Fluid milk	93.6	90.9	91.8	93.2	85.3	83.8		84.9	87.1	89.8	92.8
Oilseeds	94.4	91.4	99.2	97.2	127.5	153.8		152.3	150.7	155.7	141.0
Tobacco, leaf	101.2	89.7	85.7	89.2	82.0	82.0		82.0	84.0	91.1	93.1
Sugar, raw cane	104.6	104.9	110.2	110.6	111.8	112.7		118.2	111.8	111.6	110.7
All commodities	103.1	100.1	102.8	104.1	106.5	107.2		107.8	108.0	108.1	108.2
Industrial commodities	103.7	99.9	102.5	104.0	106.1	106.4		106.7	107.1	106.9	107.1
All foods 6/	103.9	105.5	107.8	108.1	110.1	107.4		113.4	113.0	114.6	113.7
Farm products & processed foods & feeds	100.6	101.2	103.7	104.1	108.1	111.2		113.0	112.6	114.0	113.5
Farm products	95.1	92.9	95.5	94.9	102.2	106.8		108.7	108.9	111.1	110.3
Processed foods & feeds 6/	103.5	105.4	107.9	108.7	111.2	113.5		115.3	114.6	115.6	115.2
Cereal & bakery products	110.2	111.0	112.6	114.5	120.4	123.2		123.9	124.4	126.4	126.5
Sugar & confectionery	107.9	109.6	112.6	113.6	113.1	113.6		115.7	115.6	115.5	115.9
Beverages	107.7	114.5	112.5	112.3	114.1	114.1		114.2	114.5	114.7	115.3

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types and sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh and dried. 6/ Includes all raw, intermediate, and processed foods (excludes soft drinks, alcoholic beverages, and manufactured animal feeds). R = revised.

Information contact: Bureau of Labor Statistics (202) 523-1913.

Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual				1987		1988				
	1984	1985	1986	1987	Oct	May	June	July	Aug	Sept	Oct
Market basket 1/											
Retail cost (1982-84=100)	102.9	104.1	106.3	111.6	112.2	115.0	115.5	117.3	118.4	119.5	119.3
Farm value (1982-84=100)	103.5	96.2	94.9	97.1	94.8	98.1	101.3	104.5	104.5	105.4	104.5
Farm-retail spread (1982-84=100)	102.6	108.3	112.5	119.4	121.7	124.0	123.2	124.2	125.8	127.0	127.2
Farm value-retail cost (%)	35.2	32.4	31.2	30.5	29.6	29.9	30.7	31.2	30.9	30.9	30.7
Meat products											
Retail cost (1982-84=100)	99.8	98.9	102.0	109.6	111.8	111.7	113.8	113.4	113.2	113.4	113.0
Farm value (1982-84=100)	99.2	91.3	94.3	101.2	102.4	103.2	108.3	97.5	97.5	100.3	97.6
Farm-retail spread (1982-84=100)	100.3	106.7	109.8	118.3	121.4	120.4	119.4	129.7	129.3	126.8	128.8
Farm value-retail cost (%)	50.4	46.8	46.8	46.7	46.4	46.8	48.2	43.6	43.6	44.8	43.7
Dairy products											
Retail cost (1982-84=100)	101.3	103.2	103.3	105.9	106.9	107.4	107.2	107.6	108.2	108.9	109.9
Farm value (1982-84=100)	99.2	95.2	92.6	93.3	94.7	86.5	86.3	88.0	88.8	89.3	92.3
Farm-retail spread (1982-84=100)	103.2	110.5	113.3	117.5	118.1	126.7	126.5	125.7	126.1	127.0	126.1
Farm value-retail cost (%)	47.0	44.2	43.0	42.3	42.5	38.6	38.6	39.2	39.4	39.4	40.3
Poultry											
Retail cost (1982-84=100)	107.3	106.2	114.2	112.6	111.8	114.0	120.1	129.0	131.7	133.4	129.4
Farm value (1982-84=100)	112.6	105.9	115.1	93.8	82.7	105.1	114.7	135.5	133.8	128.4	124.8
Farm-retail spread (1982-84=100)	101.1	106.6	113.3	134.2	145.3	124.2	126.3	121.5	129.3	139.1	134.7
Farm value-retail cost (%)	56.2	53.3	53.9	44.6	39.6	49.4	51.1	56.2	54.4	51.5	51.6
Eggs											
Retail cost (1982-84=100)	109.1	91.0	97.2	91.5	91.4	81.8	83.6	95.1	104.2	103.1	105.5
Farm value (1982-84=100)	110.1	85.7	92.4	76.8	71.1	56.6	62.7	84.9	86.6	97.0	87.6
Farm-retail spread (1982-84=100)	107.4	100.4	106.0	117.9	127.9	127.1	121.1	113.4	135.9	114.1	137.6
Farm value-retail cost (%)	64.8	60.5	61.0	53.9	50.0	44.4	48.2	57.4	53.4	60.4	53.4
Cereal & bakery products											
Retail cost (1982-84=100)	103.9	107.9	110.9	114.8	115.6	120.3	120.8	122.1	124.0	124.7	125.6
Farm value (1982-84=100)	102.9	94.3	76.3	71.0	72.5	86.8	94.2	97.1	99.1	98.7	100.1
Farm-retail spread (1982-84=100)	104.1	109.8	115.7	120.9	121.6	125.0	124.5	125.6	127.5	128.3	129.2
Farm value-retail cost (%)	12.1	10.7	8.4	7.6	7.7	8.8	9.6	9.7	9.8	9.7	9.8
Fresh fruits											
Retail cost (1982-84=100)	106.6	118.4	120.4	135.6	140.5	149.8	142.2	150.7	153.5	157.5	151.9
Farm value (1982-84=100)	113.7	110.8	103.8	113.9	117.6	122.9	105.0	129.6	125.5	118.6	116.0
Farm-retail spread (1982-84=100)	103.3	121.8	128.0	145.7	151.1	162.2	159.4	160.4	166.4	175.5	168.5
Farm value-retail cost (%)	33.7	29.6	27.4	26.5	26.4	25.9	23.3	27.2	25.8	23.8	24.1
Fresh vegetables											
Retail costs (1982-84=100)	108.2	103.5	107.7	121.6	112.5	124.5	121.8	127.0	125.9	132.1	129.4
Farm value (1982-84=100)	108.3	93.1	90.0	112.0	86.5	89.4	93.6	112.1	121.4	125.9	127.1
Farm-retail spread (1982-84=100)	108.2	108.9	116.8	126.5	125.9	142.6	136.3	134.7	128.2	135.3	130.6
Farm value-retail cost (%)	34.0	30.5	28.4	31.3	26.1	24.4	26.1	30.0	32.7	32.4	33.4
Processed fruits & vegetables											
Retail cost (1982-84=100)	104.3	107.0	105.3	109.0	109.7	115.9	117.6	117.8	119.2	120.4	121.4
Farm value (1982-84=100)	106.8	117.7	101.5	111.1	105.9	135.8	135.7	139.8	140.1	142.7	145.2
Farm-retail spread (1982-84=100)	103.4	103.7	106.4	105.3	110.9	110.2	112.0	110.9	112.7	113.4	114.0
Farm value-retail costs (%)	24.4	22.2	22.9	24.2	23.0	27.5	27.4	28.2	27.9	28.2	28.4
Fats & oils											
Retail cost (1982-84=100)	106.6	108.9	105.5	108.1	107.4	111.2	111.5	112.6	114.9	115.9	117.1
Farm value (1982-84=100)	124.3	104.3	76.2	74.1	74.8	100.6	108.0	132.9	114.7	106.1	102.5
Farm-retail spread (1982-84=100)	100.2	110.6	117.6	120.6	119.4	115.1	112.8	105.1	115.0	119.5	122.5
Farm value-retail cost (%)	31.3	25.8	19.2	18.4	18.7	24.3	26.1	31.8	26.9	24.6	23.5
	Annual				1987		1988				
	1984	1985	1986	1987	Oct	May	June	July	Aug	Sept	Oct
Beef, Choice											
Retail price 2/ (cts/lb)	239.6	232.6	230.7	242.5	245.7	253.2	259.9	259.3	257.8	259.7	257.8
Net carcass value 3/ (cts)	147.6	135.2	133.1	145.3	144.6	166.2	158.2	144.6	150.5	153.6	155.4
Net farm value 4/ (cts)	140.0	126.8	124.4	137.9	137.1	158.6	148.1	137.9	142.9	145.8	148.8
Farm-retail spread (cts)	99.6	105.8	106.3	104.6	108.6	96.6	111.8	121.3	114.9	113.8	109.0
Carcass-retail spread 5/ (cts)	92.0	97.4	97.6	97.2	101.1	87.0	101.6	114.7	107.3	106.0	102.5
Farm-carcass spread 6/ (cts)	7.6	8.4	8.7	7.4	7.5	7.6	10.1	6.7	7.6	7.8	6.5
Farm value-retail price (%)	58	55	54	57	56	63	57	53	55	56	58
Pork											
Retail price 2/ (cts/lb)	162.0	162.0	178.4	188.4	194.4	183.6	187.9	187.4	185.5	184.9	181.6
Wholesale value 3/ (cts)	110.1	101.1	110.9	113.0	112.7	106.4	106.3	100.0	101.4	97.2	95.8
Net farm value 4/ (cts)	77.4	71.4	82.4	82.7	77.8	76.1	76.8	72.6	73.4	65.1	62.2
Farm-retail spread (cts)	84.6	90.6	96.0	105.7	116.6	107.5	111.1	114.8	112.1	119.8	119.4
Wholesale-retail spread 5/ (cts)	51.9	60.9	67.5	75.4	81.7	77.2	81.6	87.4	84.1	87.7	85.8
Farm-wholesale spread 6/ (cts)	32.7	29.7	28.5	30.3	34.9	30.3	29.5	27.4	28.0	32.1	33.6
Farm value-retail price (%)	48	44	46	44	40	41	41	39	40	35	34

1/ Retail costs are based on indexes of retail prices for domestically produced farm foods from the CPI-U published monthly by the Bureau of Labor Statistics. The farm value is the payment to farmers for quantity of farm product equivalent to retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale and may include marketing charges such as grading and packing for some commodities. The farm-retail spread, the difference between the retail price and the farm value, represents charges for assembling, processing, transporting, and distributing these foods. 2/ Estimated weighted average price of retail cuts from pork and choice yield grade 3 beef carcasses. Retail cut prices from BLS. 3/ Value of carcass quantity (beef) and wholesale cuts (pork) equivalent to 1 lb. of retail cuts; beef adjusted for value of fat and bone byproducts. 4/ Market value to producer for quantity of live animal equivalent to 1 lb. of retail cuts minus value of byproducts. 5/ Represents charges for retailing and other marketing services such as fabricating, wholesaling, and in-city transportation. 6/ Represents charges made for livestock marketing, processing, and transportation to city where consumed.

Information contacts: Denis Dunham (202) 786-1870; Ron Gustafson (202) 786-1286.

Table 9.—Price Indexes of Food Marketing Costs

(See the December 1988 issue.)

Information contact: Denis Dunham (202) 786-1870.

Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Pro- duc- tion 1/	Im- ports	Total supply	Ex- ports	Ship- ments	Ending stocks	Consumption		Primary market price 3/
								Total	Per capita 2/ Pounds	
Million pounds 4/										
Beef										
1986	420	24,371	2,129	26,919	521	52	412	25,935	78.4	57.75
1987	412	23,566	2,269	26,247	604	52	386	25,205	73.4	64.60
1988 F	386	23,527	2,355	26,268	654	61	375	25,178	72.6	69.70
1989 F	375	21,986	2,200	24,561	670	60	325	23,506	67.2	71.77
Pork										
1986	289	14,063	1,122	15,474	86	132	248	15,008	58.6	51.19
1987	248	14,374	1,195	15,817	109	124	347	15,237	59.1	51.69
1988 F	347	15,673	1,150	17,170	186	135	440	16,409	62.9	43.44
1989 F	440	15,762	1,200	17,402	130	140	325	16,807	63.6	42.48
Veal										
1986	11	524	27	562	5	1	7	550	1.9	60.89
1987	7	429	24	460	7	1	4	449	1.5	78.05
1988 F	4	403	28	435	10	1	4	420	1.4	89.90
1989 F	4	403	25	432	9	1	4	418	1.4	89.95
Lamb and mutton										
1986	13	338	41	392	2	2	13	375	1.4	70.26
1987	13	315	44	372	2	2	8	360	1.3	78.09
1988 F	8	334	53	395	1	1	7	386	1.4	68.69
1989 F	7	341	60	408	1	0	7	400	1.4	63.69
Total red meat										
1986	733	39,296	3,319	43,348	613	187	680	41,868	140.2	—
1987	680	38,684	3,533	42,897	722	179	744	41,251	135.3	—
1988 F	745	39,937	3,586	44,268	851	198	826	42,393	138.4	—
1989 F	826	38,492	3,485	42,803	810	201	661	41,131	133.7	—
Broilers										
1986	27	14,316	0	14,342	566	149	24	13,603	56.3	56.9
1987	24	15,594	0	15,618	752	151	25	14,691	60.2	47.4
1988 F	25	16,235	0	16,260	726	146	30	15,358	62.4	55.56
1989 F	30	16,950	0	16,980	665	140	25	16,150	65.0	51.57
Nature chicken										
1986	144	627	0	771	16	3	163	589	2.4	—
1987	163	650	0	814	15	2	188	608	2.5	—
1988 F	188	636	0	825	21	3	150	650	2.6	—
1989 F	150	648	0	798	18	4	150	626	2.5	—
Turkeys										
1986	150	3,271	0	3,422	27	4	178	3,212	13.3	72.2
1987	178	3,828	0	4,006	33	4	282	3,686	15.1	57.8
1988 F	282	4,045	0	4,328	49	3	175	4,101	16.7	61.62
1989 F	175	4,170	0	4,345	36	4	175	4,130	16.6	63.69
Total poultry										
1986	321	18,215	0	18,535	609	156	365	17,405	72.0	—
1987	365	20,072	0	20,437	800	157	495	18,985	77.8	—
1988 F	495	20,917	0	21,412	796	152	355	20,109	81.7	—
1989 F	355	21,768	0	22,123	719	148	350	20,906	84.2	—
Cured meat & poultry										
1986	1,054	57,511	3,319	61,883	1,223	343	1,045	59,273	212.3	—
1987	1,045	58,756	3,533	63,334	1,522	336	1,240	60,236	213.2	—
1988 F	1,240	60,854	3,586	65,680	1,647	350	1,181	62,502	220.1	—
1989 F	1,181	60,260	3,485	64,926	1,529	349	1,011	62,037	217.9	—

1/ Total including farm production for red meats and federally inspected plus nonfederally inspected for poultry.
 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was .74 during 1962-85. It was lowered to .73 for 1986 and to .71 for 1987 and later.) 3/ Dollars per cut for red meat; cents per pound for poultry. Beef: Choice steers, maha 1,000-1,100 lb.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb and mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats and certified ready-to-cook for poultry. F = forecast. -- = not available.

Information contacts: Ron Gustafson, Leland Southard, or Mark Weimar (202) 786-1285.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Pro- duc- tion	Im- ports	Total supply	Ex- ports	Ship- ments	Hatch- ing use	Ending stocks	Consumption		
									Total	Per capita	Wholesale price*
									No	Cts/doz	
Million dozen											
1984	9.3	5,708.3	32.0	5,749.7	58.2	27.8	529.7	11.1	5,122.8	259.4	80.9
1985	11.1	5,688.0	12.7	5,711.8	70.6	30.3	548.1	10.7	5,052.0	253.3	66.4
1986	10.7	5,704.9	13.7	5,729.3	101.6	28.0	566.8	10.4	5,022.5	249.4	71.1
1987	10.4	5,796.5	5.6	5,812.5	111.2	25.1	595.0	14.4	5,066.7	249.3	61.6
1988 F	14.4	5,733.8	4.7	5,752.9	138.3	23.3	604.3	10.0	4,977.1	242.7	61-62
1989 F	10.0	5,625.0	4.0	5,639.0	106.0	24.0	630.0	10.0	4,869.0	235.3	65-71

* Cartoned Grade A large eggs, New York. F = forecast.

Information contact: Robert Bishop (202) 786-1714.

Table 12.—U.S. Milk Supply & Use¹

	Pro- duc- tion	Commercial				Total commer- cial supply	CCC net re- movals	Commercial			All milk price 2/ \$/cwt
		Farm use	Farm market- ings	Beg. stocks	Im- ports			Ending stocks	Disap- pear- ance		
		Billion pounds									
1981	132.8	2.3	130.5	5.8	2.3	138.5	12.9	5.4	120.3	13.77	
1982	135.5	2.4	133.1	5.4	2.5	141.0	14.3	4.6	122.1	13.61	
1983	139.7	2.4	137.3	4.6	2.6	144.5	16.8	5.2	122.5	13.58	
1984	135.4	2.9	132.5	5.2	2.7	140.5	8.6	4.9	126.9	13.46	
1985	143.1	2.5	140.7	4.9	2.8	148.4	13.2	4.6	130.6	12.75	
1986	143.4	2.4	141.0	4.6	2.7	148.3	10.6	4.2	133.5	12.51	
1987	142.5	2.2	140.3	4.2	2.5	146.9	6.7	4.6	135.6	12.54	
1988 F	145.3	2.2	143.1	4.6	2.5	150.2	9.0	4.2	137.0	12.15	

1/ Milkfat basis. Totals may not add because of rounding. 2/ Delivered to plants and dealers; does not reflect deductions. F = forecast.

Information contact: Jim Miller (202) 786-1770.

Table 13.—Poultry & Eggs

		Annual			1987		1988				
		1985	1986	1987	Oct	May	June	July	Aug	Sept	Oct
Broilers											
Federally inspected slaughter, certified (mil lb)		13,569.2	14,265.6	15,502.5	1,381.4	1,367.3	1,398.0	1,234.1	1,421.9	1,377.4	1,308.2
Wholesale price, 12-city, (cts/lb)		50.8	56.9	47.4	43.2	56.6	61.5	66.5	68.9	62.8	56.9
Price of grower feed (\$/ton)		197	187	186	193	181	179	248	246	245	259
Broiler-feed price ratio 1/		3.1	3.7	3.7	2.6	3.7	4.1	3.4	3.4	3.2	2.9
Stocks beginning of period (mil lb)		19.7	26.6	23.9	28.3	40.8	39.5	40.3	43.8	31.2	32.0
Broiler-type chicks hatched (mil) 2/		4,803.8	5,013.3	535.1	441.9	485.5	472.5	471.5	478.8	454.3	452.3
Turkeys											
Federally inspected slaughter, certified (mil lb)		2,800	3,133	3,717	411.0	331.2	372.4	322.4	377.3	365.7	372.2
Wholesale price, Eastern U.S., 16 lb. young hens (cts/lb)		75.5	72.2	57.8	48.6	49.3	57.1	70.8	70.5	76.0	79.6
Price of turkey grower feed (\$/ton)		212	215	213	216	212	211	272	268	269	266
Turkey-feed price ratio 1/		4.5	4.1	3.9	2.8	2.8	3.0	2.9	3.1	3.4	3.6
Stocks beginning of period (mil lb)		125.3	150.2	178.2	640.8	384.4	422.4	467.3	503.2	561.2	583.1
Poults placed in U.S. (mil)		197.8	225.4	26.5	16.7	25.3	25.9	23.9	19.3	16.0	16.2
Eggs											
Farm production (mil)		68,256	68,459	69,558	5,931	5,770	5,518	5,677	5,701	5,546	5,829
Average number of layers (mil)		277	278	280	283	272	269	268	269	272	275
Rate of lay (eggs per layer on farms)		247	248	248	21.0	21.2	20.5	21.2	21.2	20.4	21.2
Cartoned price, New York, grade A large (cts/doz) 3/		66.4	71.1	61.6	60.2	50.9	56.8	73.7	69.5	75.6	66.0
Price of laying feed (\$/ton)		182	174	170	167	176	176	236	237	236	222
Egg-feed price ratio 1/		6.3	7.0	7.6	6.0	4.9	5.2	4.9	4.9	5.4	5.3
Stocks, first of month											
Shell (mil doz)		.93	.72	1.16	.99	.42	.63	.90	.84	.75	.69
Frozen (mil doz)		10.2	10.0	9.8	12.5	13.2	15.4	19.2	17.4	18.7	16.8
Replacement chicks hatched (mil)		407	424	431	34.0	35.8	33.0	24.8	27.3	30.6	30.6

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 12 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Mark Weimar (202) 786-1714.

Table 14.—Dairy

	Annual			1987		1988					
	1985	1986	1987	Oct	May	June	July	Aug	Sept	Oct	
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/ Wholesale prices	11.48	11.30	11.23	11.35	10.34	10.34	10.52	10.98	11.48	11.88	
Butter, Grade A Chi. (cts/lb)	141.1	144.5	140.2	136.8	131.0	133.5	135.9	135.6	134.3	132.0	
Am. cheese, Wis. assembly pt. (cts/lb)	127.7	127.3	123.2	121.9	115.0	116.2	118.3	127.6	134.6	136.4	
Nonfat dry milk, (cts/lb) 2/	84.0	80.6	79.3	80.0	73.4	74.2	77.1	80.6	87.2	88.8	
USDA net removals											
Total milk equiv. (mil lb) 3/	13,174.1	10,628.1	6,706.0	660.4	1,226.7	550.7	248.9	240.0	142.3	339.1	
Butter (mil lb)	334.2	287.6	187.3	22.2	42.4	13.1	5.2	7.8	5.0	15.2	
Am. cheese (mil lb)	629.0	468.4	282.0	19.8	35.0	27.9	13.6	7.5	3.4	2.2	
Nonfat dry milk (mil lb)	940.6	827.3	559.4	30.4	53.6	28.4	7.7	7.4	0	0	
Milk											
Milk prod. 21 states (mil lb)	121,043	121,433	121,094	9,931	11,041	10,480	10,513	10,283	9,890	10,117	
Milk per cow (lb)	13,160	13,399	13,932	1,148	1,280	1,220	1,225	1,199	1,152	1,179	
Number of milk cows (thous)	9,198	9,063	8,692	8,653	8,627	8,588	8,579	8,578	8,587	8,584	
U.S. milk production (mil lb)	143,147	143,381	142,462	6/11,665	6/13,010	6/12,348	6/12,356	6/12,086	6/11,621	6/11,896	
Stocks, beginning											
Total (mil lb)	16,704	13,695	12,867	9,984	10,457	10,535	11,149	11,277	10,872	9,536	
Commercial (mil lb)	4,937	4,590	4,165	5,386	5,134	5,371	5,376	5,403	5,182	4,682	
Government (mil lb)	11,767	9,105	8,702	4,598	5,323	5,164	5,772	5,874	5,691	4,855	
Imports, total (mil lb) 3/	2,777	2,733	2,490	261	159	178	208	211	178	..	
Commercial disappearance milk equiv. (mil lb)	130,640	133,498	135,630	11,439	11,518	11,789	12,101	12,091	11,954	..	
Butter											
Production (mil lb)	1,247.8	1,202.4	1,104.1	91.2	107.9	91.7	75.9	74.2	83.0	92.2	
Stocks, beginning (mil lb)	296.5	205.5	193.0	176.2	239.8	282.5	294.7	295.7	290.0	247.6	
Commercial disappearance (mil lb)	918.2	922.9	902.5	73.0	57.5	84.4	70.6	65.5	89.7	..	
American cheese											
Production (mil lb)	2,855.2	2,798.2	2,716.7	214.1	258.7	245.2	235.9	213.7	210.1	224.1	
Stocks, beginning (mil lb)	960.5	850.2	697.1	505.2	377.0	384.0	413.0	415.8	385.1	344.4	
Commercial disappearance (mil lb)	2,279.1	2,382.8	2,444.1	222.1	226.5	214.1	229.9	235.4	229.5	..	
Other cheese											
Production (mil lb)	2,225.7	2,411.1	2,627.6	234.5	231.5	229.3	218.3	228.0	238.5	243.4	
Stocks, beginning (mil lb)	101.4	94.1	92.0	95.5	92.7	93.4	99.4	107.4	109.9	106.5	
Commercial disappearance (mil lb)	2,515.7	2,684.9	2,880.1	260.3	246.4	241.9	232.0	247.9	259.2	..	
Nonfat dry milk											
Production (mil lb)	1,390.0	1,284.1	1,059.0	64.7	104.1	104.6	79.5	66.6	60.1	56.0	
Stocks, beginning (mil lb)	1,247.6	1,011.1	686.8	245.9	171.4	180.5	160.4	138.5	92.9	63.6	
Commercial disappearance (mil lb)	435.0	479.1	495.1	44.4	47.5	83.0	76.7	85.2	69.1	..	
Frozen dessert											
Production (mil gal) 4/	1,251.0	1,248.6	1,263.4	91.4	120.1	139.0	132.0	132.3	110.0	91.5	
	Annual			1987				1988			
	1985	1986	1987	I	II	III	IV	I	II	III	P
Milk production (mil lb)	143,147	143,381	142,462	34,814	37,399	35,512	34,737	36,098	37,840	36,048	
Milk per cow (lb)	12,994	13,260	13,786	3,340	3,617	3,453	3,375	3,509	3,691	3,528	
No. of milk cows (thous)	11,016	10,813	10,334	10,424	10,339	10,283	10,291	10,286	10,252	10,219	
Milk-feed price ratio 5/	1.72	1.73	1.83	1.88	1.76	1.80	1.89	1.74	1.52	1.45	
Returns over concentrate 5/ costs (\$/cwt milk)	9.54	9.23	9.50	9.82	8.99	9.26	9.97	9.26	8.24	8.45	

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central states production area, high heat spray process.

3/ Milk-equivalent, fat-basis. 4/ Ice cream, fcc milk, and hard sherbet. 5/ Based on average milk price after adjustment for price-support deductions. 6/ Estimated. .. = not available. P = preliminary.

Information contact: Jim Miller (202) 786-1770.

Table 15.—Wool

	Annual			1987				1988			
	1985	1986	1987	Oct	May	June	July	Aug	Sept	Oct	
U.S. wool price, Boston 1/ (cts/lb)	192	191	265	300	463	460	450	450	450	463	
Imported wool price, Boston 2/ (cts/lb)	197	201	247	259	423	378	364	355	362	378	
U.S. mill consumption, scoured Apparel wool (thous lb)	106,051	126,768	129,677	10,931	9,601	13,598	9,798	9,666	10,547	10,038	
Carpet wool (thous lb)	10,562	9,960	13,092	1,412	1,282	1,241	1,089	1,657	1,715	1,031	

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" and up.

2/ Wool price delivered at U.S. mills, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents.

Information contact: John Lawler (202) 786-1840.

Table 16.—Meat Animals

	Annual			1987		1988					
	1985	1986	1987	Oct	May	June	July	Aug	Sept	Oct	
Cattle on feed (7 States)											
Number on feed (thou head) 1/	8,635	7,920	7,643	7,535	7,504	7,814	7,421	6,840	6,674	7,129	
Placed on feed (thou head)	19,346	20,035	21,020	2,604	2,170	1,367	1,246	1,618	2,184	2,475	
Marketings (thou head)	18,989	19,263	19,390	1,690	1,719	1,692	1,765	1,720	1,662	1,601	
Other disappearance (thou head)	1,132	1,049	1,207	85	141	68	62	64	67	84	
Beef steer-corn price ratio, Omaha 2/	23.3	31.0	41.0	41.2	38.6	27.9	24.5	26.2	26.4	26.4	
Hog-corn price ratio, Omaha 2/	17.8	27.8	32.8	31.0	24.3	18.9	16.8	17.8	15.9	14.9	
Market prices (\$/cwt)											
Slaughter cattle											
Choice steers, Omaha	58.37	57.75	64.60	64.81	75.15	70.58	65.96	67.08	67.71	69.13	
Utility cows, Omaha	38.32	37.19	44.83	46.41	48.79	42.68	45.39	47.33	48.42	47.71	
Choice vealers, S. St. Paul 3/	58.28	59.92	78.74	82.50	97.66	100.88	77.50	87.50	240.42	213.75	
Feeder cattle											
Choice, Kansas City, 600-700 lb.	64.56	62.79	75.36	77.00	82.88	77.38	79.08	84.65	84.00	85.81	
Slaughter hogs											
Barrows & gilts, 7-markets	44.77	51.19	51.69	48.75	47.55	48.06	45.57	46.10	41.04	32.89	
Feeder pigs											
S. Mo. 40-50 lb. (per head)	37.20	45.62	46.69	41.53	46.85	31.40	27.57	27.40	28.30	30.95	
Slaughter sheep & lambs											
Lambs, Choice, San Angelo	68.61	69.46	78.08	66.25	72.67	59.38	59.00	57.05	61.00	63.94	
Ewes, Good, San Angelo	34.02	34.78	38.62	37.13	36.38	36.30	37.83	38.20	37.38	36.88	
Feeder lambs											
Choice, San Angelo	85.91	73.14	102.26	102.00	90.63	77.80	79.67	79.50	78.56	80.38	
Wholesale meat prices, Midwest											
Choice steer beef, 600-700 lb.	90.76	88.98	97.21	96.77	111.70	106.38	97.09	101.04	103.15	104.36	
Canner & cutter cow beef	74.13	71.31	83.70	83.80	89.88	81.28	85.74	86.51	87.73	85.58	
Pork loins, 8-14 lb. 4/	91.51	104.78	106.23	103.49	112.75	111.31	104.96	106.88	97.92	85.33	
Pork bellies, 12-14 lb.	59.50	65.82	63.11	49.39	46.09	45.51	40.84	37.48	33.28	34.97	
Hams, skinned, 14-17 lb.	67.50	80.01	80.96	97.81	67.70	66.51	65.90	67.16	73.20	78.33	
All fresh beef retail price 5/	--	--	212.64	217.69	221.54	227.18	226.07	224.32	225.41	230.59	
Commercial slaughter (thou head)*											
Cattle	36,293	37,288	35,647	3,131	2,908	3,067	2,982	3,206	3,011	2,965	
Steers	16,912	17,516	17,443	1,512	1,509	1,548	1,494	1,567	1,437	1,368	
Heifers	11,237	11,097	10,906	962	850	913	927	1,039	994	965	
Cows	7,391	7,960	6,610	593	494	548	512	542	522	573	
Bulls & stags	758	715	689	64	55	58	49	58	58	59	
Calves	3,385	3,408	2,815	246	179	212	215	234	215	206	
Sheep & lambs	6,165	5,635	5,200	460	427	428	405	462	469	453	
Hogs	84,492	79,598	81,081	7,700	6,881	6,898	6,365	7,284	7,715	8,092	
Commercial production (mil lb)											
Beef	23,557	24,213	23,405	2,098	1,918	2,024	1,982	2,162	2,042	2,006	
Veal	499	509	416	36	30	34	31	35	33	34	
Lamb & mutton	352	331	309	28	27	27	24	28	28	28	
Pork	14,728	13,988	14,312	1,359	1,231	1,232	1,133	1,281	1,359	1,442	
	Annual			1987			1988				
	1985	1986	1987	II	III	IV	I	II	III	IV	
Cattle on feed (13 States)											
Number on feed (thou head) 1/	10,653	9,754	9,245	8,807	8,666	8,992	9,769	9,365	8,991	8,576	
Placed on feed (thou head)	23,366	23,583	24,874	5,906	6,590	6,698	5,796	5,898	5,959	..	
Marketings (thou head)	22,887	22,856	22,971	5,619	6,022	5,583	5,810	5,854	6,151	7/5,560	
Other disappearance (thou head)	1,378	1,236	1,379	428	242	338	390	418	223	..	
Hogs & pigs (10 States) 6/											
Inventory (thou head) 1/	42,420	41,100	39,690	38,370	40,880	43,075	42,845	41,145	44,040	45,070	
Breeding (thou head) 1/	5,348	5,258	5,110	5,215	5,325	5,300	5,465	5,500	5,625	5,470	
Market (thou head) 1/	37,072	35,842	34,580	33,155	35,555	37,775	37,380	35,645	38,415	39,600	
Farrowings (thou head)	8,831	8,223	8,783	2,352	2,257	2,259	2,103	2,552	2,343	7/2,345	
Pig crop (thou head)	67,648	63,835	68,417	18,601	17,481	17,503	16,331	19,968	17,877	..	

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Per head starting September 1988. 4/ Beginning January 1984 prices are for 14-17 lb.; January 1986 prices are for 14-18 lb. 5/ New series estimating the composite price of all beef grades and ground beef sold by retail stores. This new series in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 6/ Quarters are Dec. of preceding year-Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 7/ Intentions. *Classes estimated. -- = not available.

Information contacts: Ron Gustafson or Leland Southard (202) 786-1285.

Crops & Products

Table 17.—Supply & Utilization^{1,2}

	Area				Production	Total supply ^{4/}	Feed and residual	Other domestic use	Exports	Total use ^{5/}	Ending stocks	Farm price ^{5/}
	Set aside ^{3/}	Planted	Harvested	Yield								
	Mil acres		Bu/acre									
Wheat												
1983/84	30.0	76.4	61.4	39.6	2,420	3,939	369	742	1,429	2,540	1,399	3.51
1984/85	18.3	79.2	66.9	38.8	2,595	4,003	405	749	1,424	2,578	1,425	3.39
1985/86	18.8	75.6	64.7	37.5	2,425	3,866	279	767	915	2,961	1,905	3.08
1986/87*	20.2	72.1	60.7	34.4	2,092	4,018	413	780	1,004	2,197	1,821	2.22
1987/88*	27.9	65.8	55.9	37.6	2,105	3,941	300	805	1,600	2,705	1,236	2.57
1988/89*	30.1	65.7	53.3	34.0	1,812	3,088	270	835	1,450	2,555	533	3.60-3.75
Rice												
1983/84	1.74	2.19	2.17	4,598	99.7	172.1	—	6/54.9	70.3	125.0	46.9	8.57
1984/85	.79	2.83	2.80	4,954	138.8	187.3	—	6/60.5	62.1	122.6	64.7	8.04
1985/86	1.24	2.51	2.49	5,414	134.9	201.8	—	6/65.8	58.7	124.5	77.3	6.53
1986/87*	1.48	2.38	2.36	5,651	133.4	213.3	—	6/77.7	84.2	161.9	51.4	3.75
1987/88*	1.51	2.35	2.33	5,482	127.7	182.1	—	6/78.5	72.2	150.7	31.4	7.27
1988/89*	.93	2.88	2.86	5,547	158.4	193.0	—	6/82.2	77.0	159.2	33.8	5.00-7.00
Corn												
1983/84	32.2	60.2	51.5	81.1	4,175	7,700	3,818	975	1,901	6,694	1,006	3.21
1984/85	3.9	80.5	71.9	106.7	7,674	8,684	4,079	1,091	1,865	7,036	1,648	2.65
1985/86	5.4	83.4	75.2	118.0	8,877	10,536	4,095	1,160	1,241	6,496	4,040	2.23
1986/87*	12.7	76.7	69.2	119.3	8,250	12,291	4,714	1,192	1,504	7,410	4,882	1.50
1987/88*	23.0	65.7	59.2	119.4	7,064	11,950	4,746	1,224	1,720	7,690	4,260	1.94
1988/89*	20.8	67.5	56.7	82.3	4,671	8,936	4,500	1,215	1,775	7,490	1,446	2.40-2.80
Sorghum												
1983/84	5.7	11.9	10.0	48.7	488	927	385	10	245	640	287	2.74
1984/85	.6	17.3	15.4	56.4	866	1,154	539	18	297	854	300	2.32
1985/86	.9	18.3	16.8	66.8	1,120	1,420	664	28	178	869	551	1.93
1986/87*	2.3	15.3	13.9	67.7	938	1,489	533	15	198	746	743	1.37
1987/88*	4.1	11.8	10.6	69.9	741	1,484	573	14	235	822	663	1.70
1988/89*	4.0	10.5	9.0	60.6	546	1,209	525	15	250	790	419	2.20-2.60
Barley												
1983/84	1.1	10.4	9.7	52.3	509	733	282	170	92	544	189	2.47
1984/85	.5	12.0	11.2	53.4	599	799	304	170	77	551	247	2.29
1985/86	1.7	13.2	11.6	51.0	591	848	333	169	22	523	325	1.98
1986/87*	1.8	13.1	12.0	50.8	611	942	296	174	137	606	336	1.61
1987/88*	2.9	11.0	10.0	52.6	527	876	255	174	126	555	321	1.81
1988/89*	2.9	9.7	7.4	38.2	283	624	240	175	50	465	159	2.75-3.00
Oats												
1983/84	.3	20.3	9.1	52.6	477	727	466	78	2	546	181	1.62
1984/85	.1	12.4	8.2	58.0	476	689	433	74	1	509	180	1.67
1985/86	.1	15.3	8.2	63.7	521	728	460	82	2	544	184	1.23
1986/87*	.4	14.7	6.9	56.3	386	603	395	73	3	471	133	1.21
1987/88*	.8	18.0	6.9	54.0	376	553	360	79	1	441	112	1.56
1988/89*	.3	14.0	5.4	39.1	211	383	215	86	1	302	81	2.60-2.80
Soybeans												
1983/84	0	63.8	62.5	26.2	1,636	1,981	7/79	983	743	1,805	176	7.83
1984/85	0	67.8	66.1	28.1	1,861	2,037	7/93	1,030	598	1,721	316	5.84
1985/86	0	63.1	61.6	34.1	2,099	2,415	7/86	1,053	740	1,879	536	5.05
1986/87*	0	60.4	58.3	33.3	1,940	2,476	7/104	1,179	757	2,040	436	4.78
1987/88*	0	58.0	57.0	33.7	1,923	2,359	7/83	1,174	800	2,057	302	6.15
1988/89*	0	58.8	56.8	26.6	1,512	1,814	7/94	1,030	565	1,689	125	7.00-8.50
Soybean oil												
1983/84	--	--	--	--	10,872	12,133	--	9,588	1,824	11,412	721	30.60
1984/85	--	--	--	--	11,468	12,209	--	9,917	1,660	11,577	632	29.50
1985/86	--	--	--	--	11,617	12,257	--	10,053	1,257	11,310	947	18.00
1986/87*	--	--	--	--	12,783	13,745	--	10,833	1,187	12,320	1,725	15.40
1987/88*	--	--	--	--	9/ 13,170	14,895	--	10,930	1,873	12,803	2,092	22.65
1988/89*	--	--	--	--	9/ 11,768	13,860	--	11,100	1,300	12,400	1,460	21.00-25.00
Soybean meal												
1983/84	--	--	--	--	22,756	23,230	--	17,615	5,360	22,975	255	188
1984/85	--	--	--	--	24,529	24,784	--	19,480	4,917	24,397	387	125
1985/86	--	--	--	--	24,951	25,338	--	19,090	6,036	25,126	212	155
1986/87*	--	--	--	--	27,758	27,970	--	20,387	7,343	27,730	240	163
1987/88*	--	--	--	--	28,060	28,300	--	21,276	6,871	28,147	153	222
1988/89*	--	--	--	--	24,497	24,650	--	20,000	4,350	24,350	300	240-270

See footnotes at end of table.

Table 17.—Supply & Utilization, continued

Area	Production				Total supply	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Set aside 3/	Planted	Harvested	Yield							
	Mil acres				Lb/acre				Mil bales		
Cotton 11/	6.8	7.9	7.3	508	7.8	15.7	..	5.9	6.8	12.7	2.8
1983/84	2.5	11.1	10.4	600	13.0	15.8	..	5.5	6.2	11.8	4.1
1984/85	3.6	10.7	10.2	630	13.4	17.6	..	6.4	2.0	8.4	9.4
1985/86	3.4	10.0	8.5	552	9.7	19.1	..	7.4	6.7	14.1	5.0
1986/87*	3.2	10.4	10.0	706	14.8	19.8	..	7.6	6.6	14.2	5.8
1987/88*	1.6	12.2	11.6	627	15.2	21.0	..	6.9	5.0	11.9	9.2
1988/89*											

*December 12, 1988 supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, and oats, August 1 for cotton and rice, September 1 for soybeans, corn, and sorghum, October 1 for soymeal, and soyoil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt. of rice, and 4.59 480-pound bales of cotton. 3/ Includes diversion, PIK, and acreage reduction programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding and Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Average of crude soybean oil, Decatur. 9/ Includes 196 million pounds in imports for 1987/88 and 300 million in 1988/89. 10/ Average of 44 percent, Decatur. 11/ Upland and extra long staple. Stock estimates based on Census Bureau data which results in an unaccounted difference between supply and use estimates and changes in ending stocks. -- = not available.

Information contact: Commodity Economics Division, Crops Branch (202) 786-1840.

Table 18.—Food Grains

	Marketing year 1/				1987		1988			
	1984/85	1985/86	1986/87	1987/88	Oct	June	July	Aug	Sept	Oct
Wholesale prices										
Wheat, No. 1 HRW										
Kansas City (\$/bu) 2/	3.74	3.28	2.72	2.96	2.90	3.79	3.77	3.78	4.05	4.13
Wheat, DNS										
Minneapolis (\$/bu) 2/	3.70	3.25	2.62	2.92	2.85	4.17	3.96	4.09	4.16	4.17
Rice, S.W. La. (\$/cwt) 3/	17.98	16.11	10.25	19.25	17.70	18.85	17.90	16.65	16.05	14.5
Wheat										
Exports (mil bu)	1,424	915	1,004	1,592	141	129	120	114	130	102
Hill grind (mil bu)	676	703	755	753	69	63	63	69	65	69
Wheat flour production (mil cwt)	301	314	335	336	31	28	28	31	29	31
Rice										
Exports (mil cwt, rough equiv)	62.1	58.7	84.2	72.2	8.3	4.0	5.6	3.6	5.4	5.5
Marketing year 1/										
	1985/86	1986/87	1987/88		Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	Jun-Aug
Wheat										
Stocks, beginning (mil bu)	1,425	1,905	1,821		2,250.4	1,820.9	2,988.5	2,505.3	1,923.4	1,255.7
Domestic use										2,239.6
Food (mil bu)	674	696	719		174.3	179.3	191.1	168.6	180.0	183.0
Seed, feed & residual (mil bu) 4/	372	497	378		45.7	355.8	11.4	2.9	30.6	45.6
Exports (mil bu)	915	1,004	1,592		216.8	409.9	308.5	413.1	460.6	363.4
Marketing year 1/										
	1985/86	1986/87	1987/88		Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	Jun-Aug
Wheat										
Stocks, beginning (mil bu)	1,425	1,905	1,821		2,250.4	1,820.9	2,988.5	2,505.3	1,923.4	1,255.7
Domestic use										2,239.6
Food (mil bu)	674	696	719		174.3	179.3	191.1	168.6	180.0	183.0
Seed, feed & residual (mil bu) 4/	372	497	378		45.7	355.8	11.4	2.9	30.6	45.6
Exports (mil bu)	915	1,004	1,592		216.8	409.9	308.5	413.1	460.6	363.4
Marketing year 1/										
	1985/86	1986/87	1987/88		Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	Jun-Aug

1/ Beginning June 1 for wheat and August 1 for rice. 2/ Ordinary protein. 3/ Long-grain, milled basis. 4/ Residual includes feed use. -- = not available.

Information contacts: Ed Allen and Janet Livezey (202) 786-1840.

Table 19.—Cotton

	Marketing year 1/				1987		1988			
	1984/85	1985/86	1986/87	1987/88	Oct	June	July	Aug	Sept	Oct
U.S. price, SLM, 1-1/16 in. (cts/lb) 2/										
60.5	60.0	53.2	63.1	64.3	62.9	57.4	55.2	51.3	52.2	
Northern Europe prices										
69.2	48.9	62.0	72.7	76.2	68.8	68.2	57.7	56.8	57.6	
U.S. M 1-3/32 in. (cts/lb) 4/	73.9	64.8	61.8	76.3	76.8	80.0	76.6	60.8	60.5	62.1
U.S. mill consumption (thou bales) 5/										
5,545	6,399	7,452	7,617	713	603	477	676	624	596	
Exports (thou bales)	6,201	1,969	6,684	6,582	367	554	320	265	183	309
Stocks, beginning (thou bales)	2,775	4,102	9,348	5,026	6,213	7,542	6,386	5,771	5,655	4,734

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Outlook (A) index; average of 5 lowest priced of 11 selected growths. 4/ Memphis territory growths.

Information contact: Bob Skinner (202) 786-1840.

Table 20.—Feed Grains

	Marketing year 1/				1987		1988				
	1984/85	1985/86	1986/87	1987/88	Oct	June	July	Aug	Sept	Oct	
Wholesale prices											
Corn, No. 2 yellow, Chicago (\$/bu)	2.79	2.35	1.64	2.14	1.73	2.74	2.80	2.79	2.79	2.81	
Sorghum, No. 2 yellow, Kansas City (\$/cwt)	4.46	3.72	2.73	3.40	2.75	4.58	4.79	4.28	4.27	4.17	
Barley, feed, Duluth (\$/bu) 2/	2.09	1.53	1.44	1.78	1.78	2.41	2.31	2.08	2.24	2.32	
Barley, malting, Minneapolis (\$/bu)	2.55	2.24	1.89	2.04	2.08	3.61	3.87	4.25	4.40	4.39	
Exports 3/											
Corn (mil bu)	1,865	1,241	1,504	1,732	137.6	133.8	126.5	153.2	154.4	174.0	
Feed grains (mil metric tons) 4/	56.6	36.6	46.3	52.6	4.3	4.0	4.0	4.3	4.8	4.9	
Marketing year 1/				1987		1988					
Corn	1984/85	1985/86	1986/87	1987/88	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	Jun-Aug	Sept-Nov	
	Stocks, beginning (mil bu)	1,006	1,648	4,040	4,882	6,332	4,882	9,769	7,635	5,836	4,260
Domestic use											
Feed (mil bu)	4,079	4,095	4,714	4,746	768	1,488	1,444	960	839	1,389	
Food, seed, ind. (mil bu)	1,091	1,160	1,192	1,224	315	292	282	330	323	289	
Exports (mil bu)	1,865	1,241	1,504	1,720	368	398	408	514	414	453.0	
Total use (mil bu)	7,036	6,496	7,410	7,690	1,451	2,178	2,134	1,804	1,577	2,188.5	

1/ September 1 for corn and sorghum; June 1 for oats and barley. 2/ Beginning March 1987 reporting point changed from Minneapolis to Duluth. 3/ Excludes products. 4/ Aggregated data for corn, sorghum, oats, and barley. -- = not available.

Information contact: James Cole (202) 786-1840.

Table 21.—Fats & Oils

	Marketing year 1/				1987		1988			
	1983/84	1984/85	1985/86	1986/87	Sept	May	June	July	Aug	Sept
Soybeans										
Wholesale price, No. 1 yellow, Chicago (\$/bu) 2/	7.78	5.88	5.20	5.03	5.14	7.29	9.11	8.55	8.25	8.33
Crushings (mil bu)	982.7	1,030.5	1,052.8	1,178.8	79.7	98.0	89.2	88.0	78.3	79.9
Exports (mil bu)	742.8	600.7	740.7	756.9	56.7	39.7	29.3	29.5	35.8	26.9
Stocks, beginning (mil bu)	344.6	175.7	316.0	536.0	31.2	113.9	95.4	90.1	66.2	59.7
Soybean oil										
Wholesale price, crude, Decatur (cts/lb)	30.55	29.52	18.02	15.36	15.58	26.55	27.68	29.65	27.16	25.55
Production (mil lb)	10,862.8	11,467.9	11,617.3	12,783.1	881.4	1,087.5	996.4	994.2	878.6	901.3
Domestic disp. (mil lb)	9,589.6	9,888.5	10,045.9	10,820.1	911.0	763.7	936.8	994.7	790.7	847.1
Exports (mil lb)	1,813.7	1,659.9	1,257.3	1,184.5	224.8	138.6	269.0	157.2	78.9	183.2
Stocks, beginning (mil lb)	1,260.9	720.5	632.5	946.6	1,979.4	2,385.2	2,570.4	2,361.0	2,203.3	2,212.4
Soybean meal										
Wholesale price, 44% protein, Decatur (\$/ton)	188.21	125.46	154.88	162.61	177.20	223.50	287.80	255.60	255.10	264.90
Production (thou ton)	22,756.2	24,529.9	24,951.3	27,758.8	1,887.7	2,339.9	2,129.0	2,110.3	1,872.5	1,897.8
Domestic disp. (thou ton)	17,538.8	19,481.3	19,117.2	20,387.4	1,744.2	1,667.1	1,723.4	1,666.2	1,759.7	1,567.9
Exports (thou ton)	5,436.1	4,916.5	6,009.3	7,343.0	204.6	716.7	366.8	301.1	285.6	441.0
Stocks, beginning (thou ton)	474.1	255.4	386.9	211.7	301.3	299.5	255.6	294.4	437.4	264.6
Margarine, wholesale price, Chicago, white (cts/lb)	46.3	55.5	51.2	40.3	40.00	49.00	52.06	58.81	58.06	57.33

1/ Beginning September 1 for soybeans; October 1 for soymeal and oil; calendar year for margarine. 2/ Beginning April 1, 1982, prices based on 30-day delivery, using upper end of the range.

Information contacts: Roger Hoskin (202) 786-1840; Tom Bickerton (202) 786-1824.

Table 22.—Farm Programs, Price Supports, Participation & Payment Rates

	Target price	Loan rate	Findley loan rate	Payment rates			Base acres	Program 1/	Participation rate 2/
				Deficiency	Paid land diversion	RJK			
				\$/bu				Percent 3/	Percent of base
Wheat							Mil acres		
1983/84	4.30	3.65		.65	2.70	95	90.9	15/5/10-30	78/78/51
1984/85	4.38	3.30		1.00	2.70	85	94.0	20/10/10-20	60/60/20
1985/86	4.38	3.30		1.08	2.70		94.0	20/10/0	73
1986/87 4/	4.38	3.00	2.40	1.98	2.00	1.10	92.2	22.5/2.5/5-10	85/85/21
1987/88	4.38	2.85	2.28	1.78			91.7	27.5/0/0	87
1988/89	4.25	2.76	2.21	1.53			91.8	27.5/0/0	83
1989/90	4.10	2.58	2.06					10/0/0	
Rice				\$/cwt					
1983/84	11.40	8.14		2.77	2.70	.80	3.95	15/5/10-30	98/98/87
1984/85	11.90	8.00		3.76			4.16	25/0/0	85
1985/86	11.90	8.00	5/3.16	3.90	3.50		4.23	20/15/0	90
1986/87 4/	11.90	7.20	5/3.82	4.70			4.20	35/0/0	95
1987/88	11.66	6.84	5/5.72	4.82			4.18	35/0/0	95
1988/89	11.15	6.63	5/4.80	1.65			4.17	25/0/0	92
1989/90	10.80								
Corn				\$/bu					
1983/84	2.86	2.65		0	1.50	80	82.6	10/10/10-30	71/71/60
1984/85	3.03	2.55		.43			80.8	10/0/0	54
1985/86	3.03	2.55		.48			84.2	10/0/0	69
1986/87 4/	3.03	2.40	1.92	1.11	.73		81.9	17.5/2.5/0	86
1987/88	3.03	2.28	1.82	1.09	2.00		83.3	20/15/0	90
1988/89	2.93	2.21	1.77	6/ 1.10	1.75			20/10/0; 0/92	90
1989/90	2.84	2.06	1.65					10/0/0; 0/92	
Sorghum				\$/bu					
1983/84	2.72	2.52		0	1.50	80	18.0	7/[same]	72/72/53-
1984/85	2.88	2.42		.46			18.2		42
1985/86	2.88	2.42		.46			19.3		55
1986/87 4/	2.88	2.28	1.82	1.06	.65		19.0		75
1987/88	2.88	2.18	1.74	1.14	1.90		17.4		83/42
1988/89	2.78	2.10	1.68	1.08	1.65		17.0		81
1989/90	2.70	1.96	1.57						
Barley				\$/bu					
1983/84	2.60	2.16		.21	1.00		11.0	7/[same]	55/55/0
1984/85	2.60	2.08		.26			11.6		44
1985/86	2.60	2.08		.52			13.3		57
1986/87 4/	2.60	1.95	1.56	.99	.57		12.4		72
1987/88	2.60	1.86	1.49	.79	1.60		12.9		84
1988/89	2.51	1.80	1.44	.76	1.40		12.6		78
1989/90	2.43	1.68	1.34						
Oats				\$/bu					
1983/84	1.60	1.36		.11	.75		9.8	7/[same]	20/20/0
1984/85	1.60	1.31		0			9.8		14
1985/86	1.60	1.31		.29			9.4		14
1986/87 4/	1.60	1.24	.99	.39	.36		9.5		37
1987/88	1.60	1.18	.94	.20	.80		8.7		45
1988/89	1.55	1.13	.90	10/ .30			8.0	5/0/0; 0/92	30
1989/90	1.50	1.06	.85					5/0/0; 0/92	
Soybeans 8/				\$/bu					
1983/84		5.02							
1984/85		5.02							
1985/86		5.02							
1986/87 4/		4.77							
1987/88		4.77							
1988/89		4.77							
1989/90 9/									
Upland cotton				Cts/lb					
1983/84	76.0	55.00		12.10	25.00	85	15.4	20/5/10-30	93/93/77
1984/85	81.0	55.00		18.60			15.6	25/0/0	70
1985/86	81.0	57.30		23.70	30.00		15.8	20/10/0	82/0/0
1986/87 4/	81.0	55.00	10/44.00	26.00			15.5	25/0/0	93
1987/88	79.4	52.25	11/	17.3			14.5	25/0/0	92
1988/89	75.9	51.80		16.00			14.6	12.5/0/0	88
1989/90	73.4	50.00					14.3	25/0/0	

1/ Percentage of base acres that farmers participating in Acreage Reduction Programs/Paid Land Diversion/RJK were required to devote to conserving uses to receive program benefits. In addition to the percentages shown for 1983/84, farmers had the option of submitting bids to retire their entire base acreages. 2/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/RJK. 3/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1983 and 1984 RJK rates apply only to the 10-30 and 10-20 portions, respectively. 4/ Payment rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 5/ Annual average world market price. 6/ Guaranteed to farmers signed up for 0/92. 7/ The sorghum, oats, and barley programs were the same as for corn each year except 1983/84, when RJK was not offered on barley and oats, and in 1988 for oats. 8/ There are no target prices, acreage programs, or payment rates for soybeans. 9/ Loan rate is not to be announced prior to August 1, 1989. 10/ Loan repayment rate. 11/ Loans may be repaid at the lower of the loan rate or world market prices.

Information contact: James Cole (202) 786-1840.

Table 23.—Fruit

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987 P	1988 F
Citrus 1/												
Production (thou ton)	14,255	13,329	16,484	15,105	12,057	13,608	10,792	10,488	11,016	11,600	12,584	13,271
Per capita consumption (lbs) 2/	115.1	107.5	108.4	112.6	104.4	109.3	119.9	102.9	109.1	118.0	114.9	114.9
Noncitrus 3/												
Production (thou tons)	12,274	12,460	13,689	15,152	12,961	14,217	14,154	14,292	14,189	13,917	15,969	11
Per capita consumption (lbs) 2/	84.5	83.0	85.7	87.3	88.0	89.0	88.9	93.7	92.3	95.7	101.9	11
	1987						1988					
F.o.b. shipping point prices	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct
Apples (\$/carton) 4/	7.83	8.98	7.75	11.50	11.08	10.96	10.98	14.21	23.87	23.05	20.45	13.80
Pears (\$/box) 5/	10.82	9.70	9.26	11.18	8.94	12.88	15.14	17.50	—	—	—	—
Oranges (\$/box) 6/	8.52	5.57	5.64	6.30	6.24	6.80	8.26	8.43	6.46	6.92	4.17	5.48
Grapefruit (\$/box) 6/	6.37	5.80	5.63	5.45	5.02	4.92	4.53	3.36	4.85	4.09	7.34	7.57
Stocks, ending												
Fresh apples (mil lbs)	4,697.2	3,311.6	3,158.9	2,417.4	1,584.1	1,092.7	552.2	248.1	95.0	5.1	1,857.7	4,602.0
Fresh pears (mil lbs)	338.8	279.4	198.4	148.4	99.7	49.2	17.9	2.7	—	117.6	434.0	347.6
Frozen fruits (mil lbs)	963.1	858.2	790.4	720.1	634.6	593.3	548.5	657.3	864.0	981.4	997.5	1,110.7
Frozen orange juice (mil lbs)	569.0	662.4	980.4	1,073.1	1,004.1	1,018.7	1,120.1	1,154.7	1,001.8	862.5	693.1	642.8

1/ Crop year beginning with year indicated. 2/ Per capita consumption for total U.S. population, including military consumption of both fresh and processed fruit in fresh weight equivalent. 3/ Calendar year. 4/ Red Delicious, Washington, extra fancy, carton tray pack, 80-113's. 5/ D'Anjou, Washington, standard box wrapped, U.S. No. 1, 90-135's. 6/ U.S. equivalent on-tree returns. P = preliminary. F = forecast. -- = not available.

Information contact: Ben Huang (202) 786-1885.

Table 24.—Vegetables

	Calendar year											
	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987		
Production												
Total vegetables (1,000 cwt) 1/	382,165	413,925	381,370	379,123	431,515	403,320	457,392	453,769	445,436	463,888		
Fresh (1,000 cwt) 1/ 2/	182,563	190,859	190,228	194,694	207,924	197,919	217,132	217,932	216,267	219,598		
Processed (tons) 3/	9,980,100	11,153,300	9,557,100	9,221,460	11,179,590	10,270,050	12,013,020	11,791,860	11,616,560	12,216,490		
Mushrooms (1,000 lbs)	454,007	470,069	469,576	517,146	490,826	561,531	595,681	587,956	614,393	631,690		
Potatoes (1,000 cwt)	366,314	342,447	302,857	338,591	355,131	333,911	362,612	407,109	361,511	385,774		
Sweetpotatoes (1,000 cwt)	13,115	13,370	10,953	12,799	14,833	12,083	12,986	14,853	12,676	12,103		
Dry edible beans (1,000 cwt)	18,935	20,552	26,729	32,751	25,563	15,520	21,070	22,175	22,886	26,309		
	1987						1988					
Shipments	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Fresh (1,000 cwt) 4/	16,104	15,445	18,964	17,690	23,141	18,271	18,927	26,488	36,998	21,645	25,622	24,709
Potatoes (1,000 cwt)	9,718	11,021	10,585	11,759	12,702	8,890	14,970	12,356	12,818	12,317	12,466	13,590
Sweetpotatoes (1,000 cwt)	359	795	518	394	343	366	218	174	127	91	212	262

1/ 1983 data are not comparable with 1984 and 1985. 2/ Estimate reinstated for asparagus with the 1984 crop; all other years also include broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, and tomatoes. 3/ Estimates reinstated for cucumbers with the 1984 crop; all other years also include snap beans, sweet corn, green peas, and tomatoes. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, and watermelons.

Information contacts: Shannon Hamm or Cathy Greene (202) 786-1884.

Table 25.—Other Commodities

	Annual										
	1983	1984	1985	1986	1987	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept	
Sugar											
Production 1/	5,682	5,890	5,969	6,257	7,309	866	3,653	2,079	774	755	
Deliveries 1/	8,812	8,454	8,035	7,786	8,167	2,146	2,112	1,951	1,983	2,147	
Stocks, ending 1/	2,570	3,005	3,126	3,225	3,195	1,497	3,195	3,567	2,467	1,316	
Coffee											
Composite green price N.Y. (cts/lb)	131.51	142.95	137.46	185.18	109.14	99.16	116.12	121.98	121.44	114.20	P
Imports, green bean equiv. (mil lbs) 2/	2,259	2,411	2,550	2,596	2,638	645	640	585	450	595	P
	1985	1986	1987 P	Sept	Apr	May	June	July	Aug	Sept	
Tobacco											
Prices at auctions 3/	1.72	1.52	--	1.66	NQ	NQ	NQ	NQ	1.47	1.67	
Flue-cured (\$/lb)	1.59	1.57	--	NQ	NQ	NQ	NQ	NQ	NQ	NQ	
Burley (\$/lb)											
Domestic consumption 4/											
Cigarettes (bill)	594.0	584.0	577.0	51.0	44.8	51.6	52.7	31.4	34.4	--	
Large cigars (mil)	3,226	3,090	2,757	253.7	196.3	224.4	260.4	181.7	234.4	--	

1/ 1,000 short tons, raw value, quarterly data shown at end of each quarter. 2/ Net imports of green and processed coffee. 3/ Crop year July-June for flue-cured, October-September for burley. 4/ Taxable removals. P = preliminary. -- = not available. NQ = no quote.

Information contacts: (sugar) Peter Buzzanell (202) 786-1888; (coffee) Fred Gray (202) 786-1888; (tobacco) Verner Grise (202) 786-1890.

World Agriculture

Table 26.—World Supply & Utilization of Major Crops, Livestock, & Products

	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88 P	1988/89 F
Million units							
Wheat							
Area (hectare)	237.3	228.8	231.0	229.3	227.8	219.6	219.1
Production (metric ton)	477.3	489.3	512.0	499.8	530.2	504.3	502.5
Exports (metric ton) 1/	98.7	102.0	107.0	85.0	90.7	105.5	93.6
Consumption (metric ton) 2/	460.1	474.1	493.2	495.9	523.0	533.9	535.2
Ending stocks (metric ton) 3/	130.0	145.2	163.9	167.8	175.1	145.5	112.8
Coarse grains							
Area (hectare)	338.7	334.6	334.2	340.7	337.1	323.1	323.3
Production (metric ton)	783.9	687.2	815.3	842.8	834.8	790.5	712.7
Exports (metric ton) 1/	90.0	93.4	100.4	83.2	83.9	83.1	89.8
Consumption (metric ton) 2/	753.3	758.3	782.2	778.3	810.6	813.6	806.1
Ending stocks (metric ton) 3/	181.4	110.8	143.9	208.4	232.6	209.5	116.1
Rice, milled							
Area (hectare)	140.6	144.2	144.4	144.9	145.0	142.9	145.6
Production (metric ton)	286.5	308.0	319.1	319.7	318.4	309.0	320.4
Exports (metric ton) 4/	11.9	12.6	11.5	12.8	12.7	11.5	12.3
Consumption (metric ton) 2/	286.5	304.6	310.6	320.8	322.6	316.8	322.0
Ending stocks (metric ton) 3/	43.3	46.7	54.9	54.1	50.0	42.2	40.6
Total Grains							
Area (hectare)	716.6	707.6	709.6	714.9	709.9	685.6	688.0
Production (metric ton)	1,547.7	1,484.5	1,646.4	1,662.3	1,683.4	1,603.8	1,535.7
Exports (metric ton) 1/	200.6	208.0	218.9	181.0	187.3	200.1	195.7
Consumption (metric ton) 2/	1,499.9	1,537.0	1,586.0	1,595.0	1,656.2	1,664.3	1,663.3
Ending stocks (metric ton) 3/	354.7	302.7	362.7	430.3	457.7	397.2	269.5
Oilseeds							
Crush (metric ton)	143.5	135.8	150.6	154.8	161.2	165.1	167.2
Production (metric ton)	178.2	165.0	191.0	196.0	194.3	206.4	201.1
Exports (metric ton)	35.2	33.0	33.1	34.6	37.7	39.0	35.1
Ending stocks (metric ton)	20.5	15.7	21.1	26.8	23.3	23.6	17.4
Meals							
Production (metric ton)	98.1	92.5	101.8	104.8	110.0	112.7	113.0
Exports (metric ton)	31.6	29.7	32.3	34.4	36.7	35.6	36.5
Oils							
Production (metric ton)	43.4	42.1	46.2	49.4	50.5	52.4	53.5
Exports (metric ton)	14.0	13.7	15.6	16.4	17.0	17.3	17.7
Cotton							
Area (hectare)	31.4	31.0	33.9	31.9	29.9	32.3	34.5
Production (bale)	68.1	65.6	88.2	79.6	70.4	80.5	84.3
Exports (bale)	19.5	19.2	20.2	20.2	26.0	23.7	23.9
Consumption (bale)	68.3	68.3	70.0	75.8	82.4	83.2	82.7
Ending stocks (bale)	25.2	24.0	42.4	47.2	34.5	32.1	33.6
	1983	1984	1985	1986	1987	1988 F	1989 F
Red meat							
Production (mil metric tons)	97.5	99.6	103.5	106.4	108.8	109.9	110.1
Consumption (mil metric tons)	95.8	97.6	101.5	105.3	107.1	108.6	108.9
Exports (mil metric tons) 1/	5.9	5.9	6.2	6.6	6.6	6.7	6.8
Poultry							
Production (mil metric tons)	24.4	25.2	26.2	27.4	29.2	30.2	31.2
Consumption (mil metric tons)	24.3	24.8	26.0	27.0	28.8	29.9	30.8
Exports (mil metric tons) 1/	1.3	1.3	1.2	1.3	1.5	1.5	1.5
Dairy							
Milk production (mil metric tons)	413.0	413.5	419.1	426.8	427.1	428.6	432.4

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years and do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1983 data correspond with 1982/83, etc. P = preliminary. F = forecast.

Information contacts: Frederic Surls (202) 786-1824; (red meat & poultry) Linda Bailey (202) 786-1286; (dairy) Sara Short (202) 786-1769.

U.S. Agricultural Trade

Table 27.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1987			1988				
	1985	1986	1987	Oct	May	June	July	Aug	Sept	Oct	
Export commodities											
Wheat, f.o.b. vessel, Gulf ports (\$/bu)	3.73	3.19	3.11	3.17	3.56	4.10	4.10	4.10	4.36	4.42	
Corn, f.o.b. vessel, Gulf ports (\$/bu)	2.89	2.27	1.95	2.02	2.28	3.01	3.31	3.03	3.10	3.08	
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu)	2.64	2.16	1.88	1.89	2.12	2.91	3.02	2.78	2.81	2.76	
Soybeans, f.o.b. vessel, Gulf ports (\$/bu)	5.83	5.45	5.55	5.55	7.38	9.38	9.11	8.77	8.73	8.10	
Soybean oil, Decatur (cts/lb)	27.03	16.36	15.85	16.78	23.39	27.51	29.31	26.74	25.06	23.13	
Soybean meal, Decatur (\$/ton)	127.15	157.62	175.57	185.86	224.40	290.42	257.53	257.46	265.02	258.06	
Cotton, 8-market avg. spot (cts/lb)	58.55	53.47	64.35	64.22	61.55	62.92	57.40	55.20	51.26	52.20	
Tobacco, avg. price at auction (cts/lb)	171.55	153.96	144.34	151.34	141.22	141.22	141.22	144.21	156.52	159.39	
Rice, f.o.b. mill, Houston (\$/cwt)	18.49	14.60	13.15	19.44	21.20	20.50	20.50	18.20	16.00	15.25	
Inedible tallow, Chicago (cts/lb)	14.33	9.03	13.79	15.23	16.17	17.18	18.81	17.44	16.00	15.02	
Import commodities											
Coffee, N.Y. spot (\$/lb)	1.42	2.01	1.09	1.05	1.22	1.23	1.21	1.11	1.15	1.13	
Rubber, N.Y. spot (cts/lb)	41.91	42.87	50.65	53.76	58.62	70.64	66.05	63.84	60.08	55.17	
Cocoa beans, N.Y. (\$/lb)	.99	.88	.87	.84	.74	.71	.71	.63	.54	.58	

Information contact: Mary Teymourian (202) 786-1820.

Table 28.—Indexes of Real Trade-Weighted Dollar Exchange Rates

	1988											
	Dec	Jan	Feb	Mar	Apr	May	June P	July P	Aug P	Sept P	Oct P	Nov P
1980=100												
Total U.S. trade 2/	98.6	99.4	101.6	100.3	99.4	100.3	103.4	108.2	110.2	109.9	107.0	108.3
Agricultural trade												
U.S. markets	103.8	103.6	104.2	102.8	101.6	101.7	102.8	105.3	105.9	106.0	103.9	104.3
U.S. competitors	127.4	126.3	126.7	125.7	124.7	124.6	124.9	126.4	127.7	127.3	124.7	124.8
Wheat												
U.S. markets	116.0	115.6	115.8	114.6	112.9	113.0	113.1	115.2	115.5	116.1	114.7	115.0
U.S. competitors	122.9	122.2	122.2	121.0	120.0	119.3	119.1	119.5	120.5	118.5	114.0	113.1
Soybeans												
U.S. markets	97.2	97.5	98.8	97.4	96.5	97.0	99.4	103.2	104.5	104.1	101.6	102.5
U.S. competitors	191.0	187.0	185.5	188.4	187.1	188.5	190.1	186.0	185.5	177.5	164.9	161.7
Corn												
U.S. markets	91.7	91.3	91.8	90.7	89.3	89.5	90.5	93.3	93.7	93.9	91.7	92.1
U.S. competitors	160.3	161.1	162.8	163.9	163.6	164.8	169.4	170.5	170.4	163.3	152.4	150.8
Cotton												
U.S. markets	99.8	99.7	100.0	98.5	97.7	97.7	98.7	101.2	101.7	101.6	99.7	100.0
U.S. competitors	110.8	109.8	108.9	107.6	103.4	102.5	100.4	100.4	99.2	99.4	97.7	98.6

1/ Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. 2/ Federal Reserve Board Index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets.

P = preliminary.

Information contact: Tim Baxter, David Stallings (202) 786-1706

Table 29.—Trade Balance

	Fiscal year*										Sept
	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1988	
\$ million											
Exports											
Agricultural	43,780	39,097	34,769	38,027	31,201	26,309	27,876	35,334	36,500	3,173	
Nonagricultural	185,423	176,308	159,373	170,014	179,236	176,628	202,911	259,013	--	23,164	
Total 1/	229,203	215,405	194,142	208,041	210,437	202,937	230,787	294,347	--	26,337	
Imports											
Agricultural	17,218	15,485	16,373	18,916	19,740	20,875	20,650	21,011	21,000	1,650	
Nonagricultural	237,469	233,349	230,527	297,736	313,722	342,855	367,374	409,141	--	34,421	
Total 2/	254,687	248,834	246,900	316,652	333,462	363,730	388,024	430,152	--	36,071	
Trade balance											
Agricultural	26,562	23,612	18,396	19,111	11,461	5,434	7,226	14,323	15,500	1,523	
Nonagricultural	-52,046	-57,041	-71,154	-127,722	-134,486	-166,227	-164,463	-150,128	--	-11,257	
Total	-25,484	-33,429	-52,758	-108,611	-123,025	-160,793	-157,237	-135,805	--	-9,734	

*Fiscal years begin October 1 and end September 30. Fiscal year 1988 began Oct. 1, 1987 and ended Sept. 30, 1988.

1/ Domestic exports including Department of Defense shipments (F.A.S. value). 2/ Imports for consumption (customs value). F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 30.—U.S. Agricultural Exports & Imports

	Fiscal year*				Sept 1988	Fiscal year*				Sept 1988
	1986	1987	1988	1989 F		1986	1987	1988	1989 F	
					Thousand units				\$ million	
EXPORTS										
Animals, live (no) 1/	570	275	1,082	--	527	344	331	452	--	81
Meats & preps., excl. poultry (mt)	451	548	631	2,500	64	1,012	1,300	1,797	--	197
Dairy products (mt)	480	445	388	--	44	431	491	536	500	83
Poultry meats (mt)	265	376	390	400	36	282	406	424	--	45
Fats, oils, & greases (mt)	1,355	1,220	1,362	3/1,300	150	477	417	545	--	64
Hides & skins incl. furskins	--	--	--	--	--	1,440	1,666	1,838	--	144
Cattle hides, whole (no) 1/	25,596	24,333	23,282	--	2,149	1,131	1,254	1,457	--	126
Mink pelts (no) 1/	2,697	2,760	2,455	--	110	65	103	88	--	3
Grains & feeds (mt)	74,358	90,211	108,905	--	9,552	9,472	9,059	12,581	4/15,200	1,367
Wheat (mt)	25,501	28,204	40,501	39,000	3,467	3,260	2,877	4,467	5/5,900	490
Wheat flour (mt)	1,094	1,305	1,046	1,200	48	203	207	171	--	10
Rice (mt)	2,382	2,454	2,173	2,400	175	648	551	731	700	62
Feed grains, incl. products (mt)	36,236	47,606	53,308	51,500	4,813	3,817	3,752	5,209	6,400	605
Feeds & fodders (mt)	8,392	10,113	11,233	6/11,000	997	1,286	1,455	1,719	--	173
Other grain products (mt)	1,015	755	908	--	64	332	285	361	--	33
Fruits, nuts, and preps. (mt)	2,003	2,146	2,409	--	185	1,766	2,050	2,368	--	234
Fruit juices incl. froz. (hl) 1/	3,652	4,364	5,497	--	443	148	185	252	--	21
Vegetables & preps. (mt)	1,442	1,629	1,826	--	144	997	1,176	1,282	--	106
Tobacco, unmanufactured (mt)	224	224	229	200	15	1,318	1,203	1,296	1,200	81
Cotton, excl. linters (mt)	482	1,306	1,388	1,100	58	678	1,419	2,136	1,500	86
Seeds (mt)	269	305	286	--	13	367	371	415	400	26
Sugar, cane or beet (mt)	375	582	318	--	29	75	113	98	--	10
Oilseeds & products (mt)	27,583	29,725	29,471	--	1,299	6,271	6,308	7,700	6,900	465
Oilseeds (mt)	20,684	21,905	21,366	--	738	4,394	4,423	5,238	--	245
Soybeans (mt)	20,139	21,394	20,908	15,400	706	4,174	4,205	5,008	4,600	228
Protein meal (mt)	5,614	6,786	6,406	4,100	409	1,132	1,347	1,502	1,100	116
Vegetable oils (mt)	1,284	1,035	1,699	--	152	746	538	961	--	104
Essential oils (mt)	7	8	9	--	1	105	111	120	--	10
Other	568	565	668	--	40	1,126	1,273	1,495	--	152
Total	109,862	129,290	148,280	136,000	11,630	26,309	27,876	35,334	36,500	3,173
IMPORTS										
Animals, live (no) 1/	1,885	1,994	2,238	--	168	637	610	729	600	57
Meats & preps., excl. poultry (mt)	1,139	1,282	1,280	--	91	2,248	2,797	2,788	--	199
Beef & veal (mt)	693	778	779	750	55	1,252	1,575	1,681	1,600	123
Pork (mt)	406	462	456	435	33	900	1,125	1,001	900	69
Dairy products (mt)	400	461	337	400	29	786	849	881	700	71
Poultry and products 1/	--	--	--	--	--	101	112	97	--	8
Fats, oils, & greases (mt)	22	21	20	--	1	17	18	19	--	1
Hides & skins, incl. furskins 1/	--	--	--	--	--	200	304	247	--	15
Wool, unmanufactured (mt)	53	--	703	--	2	160	201	292	--	9
Grains & feeds (mt)	2,311	2,336	3,050	2,800	237	668	727	868	900	82
Fruits, nuts, & preps., excl. juices (mt)	4,637	4,840	4,797	4,795	333	1,976	2,179	2,169	--	150
Bananas & plantains (mt)	3,042	3,106	3,030	3,050	247	740	817	820	900	67
Fruit juices (hl) 1/	31,539	34,059	26,754	29,000	2,265	698	728	767	--	73
Vegetables & preps. (mt)	2,199	2,446	2,521	2,500	180	1,560	1,509	1,593	1,600	111
Tobacco, unmanufactured (mt)	208	225	217	210	20	606	634	611	600	59
Cotton, unmanufactured (mt)	41	38	36	--	2	14	7	9	--	7/
Seeds (mt)	89	133	143	140	6	111	156	153	200	11
Nursery stock & cut flowers 1/	--	--	--	--	--	353	369	419	--	51
Sugar, cane or beet (mt)	1,905	1,492	1,069	--	99	654	497	368	--	35
Oilseeds & products (mt)	1,508	1,572	1,772	1,750	168	639	579	838	900	84
Oilseeds (mt)	197	165	208	--	21	69	56	71	--	8
Protein meal (mt)	138	245	253	--	23	15	30	42	--	4
Vegetable oils (mt)	1,173	1,162	1,311	--	125	555	493	725	--	72
Beverages excl. fruit juices (hl) 1/	15,488	15,547	15,583	--	1,294	1,848	1,923	2,008	--	162
Coffee, tea, cocoa, spices (mt)	1,940	1,915	1,842	--	131	6,099	4,868	4,274	--	310
Coffee, incl. products (mt)	1,223	1,206	1,050	1,090	78	4,400	3,233	2,600	3,000	199
Cocoa beans & products (mt)	507	503	562	530	36	1,189	1,087	1,164	1,100	70
Rubber & allied gums (mt)	801	824	846	840	60	615	714	949	800	81
Other	--	--	--	--	--	885	868	931	--	80
Total	--	--	--	--	--	20,875	20,650	21,011	21,000	1,650

*Fiscal years begin October 1 and end September 30. Fiscal year 1988 began Oct. 1, 1987 and ended Sept. 30, 1988. 1/ Not included in total volume. 2/ Forecasts for footnoted items 2/6/ are based on slightly different groups of commodities. Fiscal 1988 exports of categories used in the 1989 forecasts were 2/ 561,000 mt. 3/ 1,347 million dollars. 4/ 12,743 million. 5/ 4,638 million, i.e. includes flour. 6/ 11,095 million mt. 7/ Less than 500 tons. F = forecast. -- = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 31.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*				Sept 1988	Change from year* earlier				Sept 1988
	1986	1987	1988	1989 F		1986	1987	1988	1989 F	
	\$ million					Percent				
Western Europe	6,848	7,219	8,029	7,800	529	-5	5	11	-2	-6
European Community (EC-12)	6,432	6,787	7,513	7,300	484	-4	5	11	-3	-6
Belgium-Luxembourg	361	423	429	--	30	-23	17	1	--	27
France	431	495	565	--	35	-9	15	14	--	-16
Germany, Fed. Rep.	1,001	1,266	1,306	--	89	11	26	3	--	-20
Italy	693	733	713	--	41	-2	6	-3	--	25
Netherlands	2,042	1,954	2,087	--	94	6	-4	7	--	-36
United Kingdom	628	666	819	--	77	0	6	23	--	57
Portugal	308	271	340	--	21	-39	-12	25	--	78
Spain, incl. Canary Islands	723	658	848	--	66	-13	-9	29	--	49
Other Western Europe	415	432	516	500	45	-19	4	20	0	-8
Switzerland	128	145	191	--	12	-45	13	32	--	32
Eastern Europe	447	453	559	500	29	-16	1	23	-11	-25
German Dem. Rep.	52	66	67	--	21	-36	27	0	--	191
Poland	42	63	167	--	4	-66	50	165	--	617
Yugoslavia	134	131	104	--	1	-2	-2	-21	--	-95
Romania	112	115	93	--	2	27	3	-19	--	-60
USSR	1,105	659	1,934	2,200	87	-56	-40	193	16	245
Asia	10,494	11,990	15,928	17,000	1,528	-12	14	33	7	42
West Asia (Mideast)	1,243	1,664	1,903	1,900	196	-14	34	14	0	33
Turkey	111	117	120	--	9	-13	5	3	--	245
Iraq	335	528	735	900	90	-10	58	39	29	102
Israel	255	244	334	--	16	-15	-4	37	--	39
Saudi Arabia	335	489	464	400	58	-12	46	-5	-13	-2
South Asia	517	345	805	--	139	-14	-33	133	--	111
Bangladesh	94	111	107	--	37	-54	18	-3	--	74
India	90	93	354	--	70	-30	3	281	--	319
Pakistan	285	98	276	400	24	25	-66	181	33	21
China	83	235	613	800	90	-65	183	161	33	147
Japan	5,139	5,554	7,274	8,000	622	-9	8	31	10	39
Southeast Asia	724	708	1,015	--	72	-14	-2	43	--	0
Indonesia	172	152	238	--	15	-16	-12	56	--	-17
Philippines	269	259	345	300	34	-6	-4	33	0	21
Other East Asia	2,788	3,485	4,318	4,600	409	-11	25	24	7	35
Taiwan	1,109	1,354	1,577	1,600	172	-17	22	16	0	65
Korea, Rep.	1,277	1,693	2,250	2,500	188	-9	33	33	11	19
Hong Kong	400	436	488	500	48	1	9	12	0	16
Africa	2,134	1,784	2,272	2,400	245	-16	-16	27	6	70
North Africa	1,401	1,279	1,659	1,800	163	16	-9	30	8	116
Morocco	159	196	193	--	28	2	23	-2	--	-22
Algeria	329	244	537	700	35	50	-26	120	30	132
Egypt	875	761	786	900	89	14	-13	3	15	311
Sub-Saharan	733	505	613	600	83	-44	-31	21	0	19
Nigeria	158	67	44	--	5	-57	-58	-35	--	155
Rep. S. Africa	70	49	85	--	10	-63	-30	74	--	46
Latin America & Caribbean	3,598	3,765	4,401	4,500	566	-21	5	17	2	74
Brazil	445	418	176	200	4	-20	-6	-58	0	-79
Caribbean Islands	752	829	867	--	77	-2	10	5	--	16
Central America	334	377	413	--	53	-7	13	10	--	34
Colombia	137	115	178	--	14	-42	-16	55	--	-25
Mexico	1,114	1,215	1,726	1,900	285	-29	9	42	10	146
Peru	108	140	174	--	30	2	30	24	--	76
Venezuela	493	459	597	500	80	-32	-7	30	-16	150
Canada	1,466	1,776	1,973	2,000	167	-15	21	11	0	2
Oceania	216	230	238	200	21	6	6	3	0	43
Total	26,309	27,876	35,334	36,500	3,173	-16	6	27	3	35
Developed countries	13,954	15,031	17,883	18,200	1,360	-8	8	19	2	13
Less developed countries	10,719	11,498	14,346	14,800	1,606	-15	7	25	3	54
Centrally planned countries	1,636	1,347	3,106	3,500	206	-50	-18	131	13	104

*Fiscal years begin October 1 and end September 30. Fiscal year 1988 began Oct. 1, 1987 and ended Sept. 30, 1988.

F = forecast. -- = not available.

Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 786-1822.

Farm Income

Table 32.—Farm Income Statistics

	Calendar Year											
	\$ billion											
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F	
1. Farm receipts	133.8	142.0	144.1	147.1	141.1	146.8	149.1	140.2	143.7	155	153 to 159	
Crops (incl. net CCC loans)	62.3	71.7	72.5	72.3	67.1	69.5	74.2	63.6	61.9	69	69 to 72	
Livestock	69.2	68.0	69.2	70.3	69.4	73.0	69.8	71.5	76.2	80	79 to 82	
Farm related 1/	2.2	2.3	2.5	4.5	4.5	4.4	5.0	5.1	5.6	6	5 to 7	
2. Direct Government payments	1.4	1.3	1.9	3.5	9.3	8.4	7.7	11.8	16.7	14	10 to 12	
Cash payments	1.4	1.3	1.9	3.5	4.1	4.0	7.6	8.1	6.5	8	7 to 9	
Value of PIK commodities	0.0	0.0	0.0	0.0	5.2	4.5	0.1	3.7	10.2	6	2 to 4	
3. Total gross farm income (4+5+6) 2/	150.7	149.3	166.4	163.5	153.1	174.9	166.2	159.8	169.8	170	182 to 187	
4. Gross cash income (1+2)	135.1	143.3	146.0	150.6	150.4	155.2	156.8	152.0	160.4	169	165 to 169	
5. Nonmoney income 3/	10.6	12.3	13.8	14.3	13.5	13.4	11.8	10.6	10.0	9	8 to 10	
6. Value of inventory change	5.0	-6.3	6.5	-1.4	-10.9	6.3	-2.4	-2.8	-6	-8	8 to 10	
7. Cash expenses 4/	101.7	109.1	113.2	112.8	113.5	116.6	110.2	100.6	103.3	111	115 to 118	
8. Total expenses	123.3	133.1	139.4	140.0	140.4	142.7	134.0	122.3	123.5	132	136 to 140	
9. Net cash income (4-7)	33.4	34.2	32.8	37.8	36.9	38.7	46.6	51.4	57.1	57	48 to 52	
10. Net farm income (3-8)	27.4	16.1	26.9	23.5	12.7	32.2	32.3	37.5	46.3	39	44 to 48	
Deflated (1982\$)	34.9	18.8	28.6	23.5	12.2	29.7	29.1	32.9	39.3	32	36 to 40	
11. Off-farm income	33.8	34.7	35.8	36.4	37.0	38.9	42.6	44.6	46.8	49	48 to 51	
12. Loan changes 5/: Real estate	13.0	9.9	9.1	3.8	2.3	-1.1	-6.0	-9.2	-7.7	-4	0 to 3	
13. 5/: Nonreal estate	11.2	5.3	6.5	3.4	0.9	-0.8	-9.6	-10.7	-4.9	1	2 to 3	
14. Rental income plus monetary change	6.3	6.1	6.4	6.3	5.3	8.9	8.8	7.8	6.8	8	7 to 9	
15. Capital expenditures 5/	20.1	18.0	16.8	13.3	12.7	12.5	9.6	8.5	9.8	10	9 to 11	
16. Net cash flow (9+12+13+14-15)	43.8	37.6	37.8	38.1	32.7	33.1	30.2	30.8	41.4	53	50 to 54	

1/ Income from machine hire, custom work, sales of forest products, and other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food and imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, and farm household expenses. 5/ Excludes farm households. Totals may not add because of rounding. F = forecast.

Information contact: Andy Bernat (202) 786-1808.

Table 33.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/											
	\$ billion											
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F	
Assets												
Real estate	706.2	782.9	784.7	748.8	739.6	639.6	558.6	510.1	522.6	553	560 to 57	
Nonreal estate	201.6	213.2	212.0	212.4	205.7	208.9	190.4	181.5	186.3	188	187 to 20	
Livestock & poultry	61.4	60.6	53.5	53.0	49.7	49.6	46.3	47.6	57.6	61	60 to 64	
Machinery & motor vehicles	85.8	93.1	101.4	102.0	100.8	96.9	87.6	80.3	73.9	74	74 to 78	
Crops stored 2/	29.2	33.0	29.1	27.9	23.9	29.6	23.5	19.1	20.5	18	18 to 22	
Financial assets	25.3	26.5	28.0	29.5	31.3	32.8	33.0	34.4	34.3	35	35 to 37	
Total farm assets	907.8	996.1	996.7	961.2	945.3	848.5	749.0	691.6	708.9	941	755 to 76	
Liabilities												
Real estate 3/	79.7	89.6	98.7	102.5	104.8	103.7	97.7	88.5	80.8	78	76 to 80	
Nonreal estate 4/	71.8	77.1	83.6	87.0	87.9	87.1	77.5	66.8	61.9	65	63 to 67	
Total farm liabilt.	151.6	166.8	182.3	189.5	192.7	190.8	175.2	155.3	142.7	143	139 to 14	
Total farm equity	756.2	829.3	814.4	771.7	752.6	657.7	573.8	536.3	566.3	617	612 to 62	
Percent												
Selected ratios												
Debt-to-assets	16.7	16.7	18.3	19.7	20.4	22.5	23.4	22.5	20.1	18.8	18 to 20	
Debt-to-equity	20.0	20.1	22.4	24.6	25.6	29.0	30.5	29.0	25.2	23.1	22 to 24	
Debt-to-net cash income 4/	488	556	497	523	493	376	302	250	241	280	280 to 29	

1/ As of December 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC.

3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 786-1798.

Table 34.—Cash Receipts from Farm Marketings, by State

Region & State	Livestock & Products				Crops 1/				Total 1/			
	1986	1987	Aug 1988	Sept 1988	1986	1987	Aug 1988	Sept 1988	1986	1987	Aug 1988	Sept 1988
North Atlantic												
Maine	247	243	21	21	139	170	13	14	386	413	34	36
New Hampshire	72	66	5	5	38	38	3	5	110	104	8	10
Vermont	361	377	30	30	36	35	1	4	397	412	31	34
Massachusetts	130	124	10	9	286	268	24	44	416	393	34	54
Rhode Island	12	12	1	1	63	63	2	19	76	75	3	20
Connecticut	209	196	17	17	166	170	11	20	374	366	28	36
New York	1,808	1,800	145	146	782	726	95	123	2,590	2,527	241	269
New Jersey	150	140	12	11	432	423	56	42	582	563	67	53
Pennsylvania	2,242	2,319	195	199	903	905	76	89	3,145	3,224	271	288
North Central												
Ohio	1,586	1,614	134	132	2,003	1,808	133	146	3,589	3,422	267	278
Indiana	1,860	1,856	147	153	2,201	2,016	152	140	4,061	3,872	299	293
Illinois	2,155	2,262	175	189	4,612	3,913	291	350	6,766	6,174	466	539
Michigan	1,241	1,285	106	110	1,327	1,219	105	128	2,567	2,504	211	237
Wisconsin	4,022	4,222	343	351	845	795	112	136	4,867	5,017	456	487
Minnesota	3,408	3,645	310	322	2,622	2,165	314	212	6,030	5,809	624	534
Iowa	4,981	5,270	440	459	4,003	3,510	400	195	8,984	8,780	840	654
Missouri	1,968	2,173	159	199	1,537	1,517	104	128	3,595	3,691	264	327
North Dakota	671	760	46	72	1,639	1,548	108	131	2,310	2,308	154	204
South Dakota	1,487	1,910	131	157	889	813	69	74	2,375	2,723	200	231
Nebraska	4,251	4,848	440	533	2,562	1,975	162	158	6,813	6,823	602	692
Kansas	3,466	3,914	397	324	1,866	1,807	159	193	5,333	5,722	556	517
Southern												
Delaware	402	370	42	48	119	114	19	16	520	485	61	65
Maryland	811	734	71	73	374	394	24	42	1,185	1,128	95	115
Virginia	1,151	1,244	141	136	479	448	49	72	1,629	1,692	190	208
West Virginia	156	169	14	17	59	52	6	14	215	221	20	31
North Carolina	2,171	2,081	192	209	1,586	1,634	325	4410	3,757	3,715	517	650
South Carolina	456	461	37	41	442	470	78	56	898	931	116	96
Georgia	1,884	1,826	184	173	1,312	1,261	119	284	3,195	3,087	303	457
Florida	1,018	1,102	100	94	3,696	4,125	164	146	4,714	5,227	265	240
Kentucky	1,362	1,506	83	169	1,040	913	26	41	2,402	2,419	109	210
Tennessee	1,041	1,107	123	103	813	826	44	57	1,854	1,933	167	160
Alabama	1,425	1,560	177	150	595	588	21	21	2,020	2,148	198	246
Mississippi	1,048	1,040	104	134	749	939	21	135	1,796	1,979	125	269
Arkansas	2,017	2,116	232	221	988	1,027	24	168	3,005	3,143	256	390
Louisiana	515	521	59	55	837	899	67	114	1,352	1,420	126	169
Oklahoma	1,874	2,052	230	222	708	700	61	52	2,582	2,752	291	274
Texas	5,517	6,059	577	648	3,186	3,027	310	463	8,704	9,086	888	1,110
Western												
Montana	652	760	27	84	469	587	34	38	1,121	1,347	60	122
Idaho	884	926	74	86	1,052	1,120	122	189	1,936	2,047	196	275
Wyoming	451	528	21	69	116	114	19	9	566	642	40	78
Colorado	2,218	2,321	182	311	888	870	95	105	3,106	3,191	277	416
New Mexico	712	817	62	104	304	331	38	31	1,016	1,147	100	135
Arizona	696	774	46	69	918	1,007	27	69	1,614	1,781	73	139
Utah	442	462	41	40	134	134	12	17	576	596	53	57
Nevada	159	167	16	13	79	76	11	7	238	243	27	20
Washington	980	982	87	88	1,828	1,860	267	325	2,807	2,841	354	413
Oregon	654	655	66	64	1,124	1,206	162	196	1,778	1,861	228	261
California	4,435	4,741	412	438	10,209	10,781	840	1,186	14,645	15,522	1,252	1,624
Alaska	10	11	1	1	18	19	2	2	28	29	3	3
Hawaii	84	88	7	7	481	471	41	40	565	559	48	47
United States	71,548	76,218	6,671	7,310	63,554	61,876	5,423	6,761	135,102	138,094	12,094	14,071

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period. 2/ Estimates as of the end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 786-1804.

Table 35.—Cash Receipts from Farming

Farm marketings & CCC loans *	Annual						1987		1988				
	1982	1983	1984	1985	1986	1987	Sept	May	June	July	Aug	Sept	
	\$ million												
Farm marketings & CCC loans *	142,594	136,567	142,436	144,015	135,102	138,094	12,703	10,846	11,647	11,717	12,094	14,071	
Livestock & products	70,257	69,438	72,966	69,842	71,548	76,218	6,653	6,572	6,035	6,428	6,671	7,310	
Meat animals	40,917	38,893	40,832	38,589	39,122	44,716	4,006	3,991	3,402	3,426	3,867	4,652	
Dairy products	18,234	18,763	17,944	18,043	17,753	17,829	1,439	1,481	1,393	1,426	1,434	1,535	
Poultry & eggs	9,520	9,981	12,223	11,211	12,678	11,487	1,009	942	1,065	1,190	1,209	1,222	
Other	1,586	1,801	1,967	1,979	1,994	2,187	199	158	174	386	161	201	
Crops	72,338	67,129	69,469	74,173	63,554	61,876	6,050	4,274	5,612	5,289	5,423	6,761	
Food grains	11,612	9,713	9,740	8,993	5,631	718	431	403	1,177	671	769		
Feed crops	17,409	15,535	15,668	22,520	16,982	13,061	832	740	1,327	1,291	1,368	1,085	
Cotton (lint & seed)	4,457	3,705	3,674	3,587	3,551	4,027	526	119	86	32	173	474	
Tobacco	3,342	2,752	2,813	2,722	1,918	1,827	551	0	0	10	434	429	
Oil-bearing crops	13,817	13,546	13,641	12,474	10,592	10,800	811	742	763	754	660	1,105	
Vegetables & melons	8,063	8,459	9,138	8,558	8,630	9,223	903	939	819	670	946	1,044	
Fruits & tree nuts	6,846	6,056	6,737	6,843	7,288	7,869	883	490	702	794	629	1,021	
Other	6,993	7,365	8,060	8,378	8,962	9,658	827	813	532	562	543	834	
Government payments	3,492	9,295	8,430	7,704	11,813	16,767	345	1,628	1,286	241	39	154	
Total	146,088	145,862	150,866	151,719	146,915	154,841	13,048	12,474	12,933	11,958	12,133	14,225	

* Receipts from loans represent value of commodities placed under CCC loans minus value of redemptions during the month.

Information contact: Roger Strickland (202) 786-1804.

Table 36.—Farm Production Expenses

	Calendar year												
	1980	1981	1982	1983	1984	1985	1986	1987	1988 F	1989 F			
	\$ million												
Feed	20,971	20,855	18,592	21,725	19,852	18,015	16,179	16,093	22,000	20,000	to 24,000		
Livestock	10,670	8,999	9,684	8,814	9,498	8,958	9,744	12,014	13,000	11,000	to 14,000		
Seed	3,220	3,428	3,172	2,993	3,448	3,350	2,984	3,009	3,000	3,000	to 4,000		
Farm-origin inputs	34,861	33,282	31,448	33,532	32,798	30,323	28,907	31,116	38,000	36,000	to 40,000		
Fertilizer	9,491	9,409	8,018	7,067	7,429	7,259	5,787	5,392	6,000	6,000	to 8,000		
Fuels & oils	7,879	8,570	7,888	7,503	7,143	6,584	4,790	4,442	4,000	4,000	to 6,000		
Electricity	1,526	1,747	2,041	2,146	2,166	2,150	1,942	2,393	3,000	2,000	to 3,000		
Pesticides	3,539	4,201	4,282	4,154	4,767	4,994	4,485	4,588	5,000	5,000	to 6,000		
Manufactured inputs	22,435	23,927	22,229	20,870	21,505	20,987	17,004	16,815	17,000	18,000	to 22,000		
Short-term interest	8,717	10,722	11,349	10,615	10,396	8,821	7,795	7,305	8,000	7,000	to 9,000		
Real estate interest 1/	7,544	9,142	10,481	10,815	10,733	9,878	9,131	8,202	8,000	7,000	to 9,000		
Total interest charges	16,261	19,864	21,830	21,430	21,129	18,699	16,926	15,508	16,000	15,000	to 17,000		
Repair & maintenance 1/ 2/	7,075	7,021	6,428	6,529	6,416	6,370	6,426	6,546	7,000	7,000	to 8,000		
Contract & hired labor	9,293	8,931	10,075	9,725	9,729	9,799	9,879	10,747	11,000	11,000	to 13,000		
Machine hire & custom work	1,823	1,984	2,025	1,896	2,170	2,184	1,810	1,956	2,000	2,000	to 3,000		
Marketing, storage, & transportation	3,070	3,523	4,301	3,904	4,012	4,127	3,652	3,823	3,000	4,000	to 5,000		
Misc. operating expenses 1/	6,881	6,909	7,262	9,089	9,106	8,232	7,993	8,311	7,000	6,000	to 7,000		
Other operating expenses	28,142	28,368	30,089	31,143	31,433	30,712	29,760	31,383	31,000	32,000	to 36,000		
Capital consumption 1/	21,474	23,573	24,287	23,873	23,105	20,847	18,916	17,348	18,000	17,000	to 18,000		
Taxes 1/	3,891	4,246	4,036	4,469	4,059	4,231	4,125	4,345	4,000	4,000	to 5,000		
Net rent to nonoperator landlord	6,075	6,184	6,059	5,060	8,640	8,158	6,698	6,987	7,000	7,000	to 8,000		
Other overhead expenses	31,440	34,003	34,381	33,402	35,805	33,236	29,739	28,680	29,000	28,000	to 31,000		
Total production expenses	133,139	139,444	139,980	140,377	142,669	133,957	122,335	123,502	132,000	136,000	to 140,000		

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses includes other livestock purchases and dairy assessments. Totals may not add because of rounding. F = forecast.

Information contacts: Chris McGath (202) 786-1804; Andy Bernat (202) 786-1808.

Table 37.—CCC Net Outlays by Commodity & Function

	Fiscal year											
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 E	1989 E	
	\$ million											
COMMODITY/PROGRAM												
Feed grains	1,144	1,286	-533	5,397	6,815	-758	5,211	12,211	13,967	8,200	2,725	
Wheat	308	879	1,543	2,238	3,419	2,536	4,691	3,440	2,836	557	695	
Rice	49	-76	24	164	664	333	990	947	906	125	1,002	
Upland cotton	141	64	336	1,190	1,363	244	1,553	2,142	1,786	757	2,609	
Tobacco	157	-88	-51	103	880	346	455	253	-346	-399	-326	
Dairy	24	1,011	1,894	2,182	2,528	1,502	2,085	2,337	1,166	1,183	682	
Soybeans	4	116	87	169	288	-585	711	1,597	-476	-1,449	-176	
Peanuts	27	28	28	12	-6	1	12	32	8	7	1	
Sugar	313	-405	-121	-5	49	10	184	214	-65	-15	0	
Honey	-2	9	8	27	48	90	81	89	73	82	71	
Wool	39	35	42	54	94	132	109	123	152	137	85	
Operating expense	97	157	159	294	328	362	346	457	535	568	583	
Interest expenditure	238	518	220	-13	3,525	1,064	1,435	1,411	1,219	444	694	
Export programs	417	-669	-940	65	398	743	134	102	276	281	197	
Other	656	-113	1,340	-225	-1,542	1,295	-314	486	371	2,631	2,287	
Total	3,612	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	13,109	11,129	
FUNCTION												
Price-support loans (net)	2	-66	174	7,015	8,438	-27	6,272	13,628	12,199	4,435	949	
Direct payments												
Deficiency	1,024	79	0	1,185	2,780	612	6,302	6,166	4,833	3,857	4,833	
Diversion	419	56	0	0	705	1,504	1,525	64	382	10	0	
Disaster	367	258	1,030	306	115	1	0	0	0	0	0	
Dairy termination	0	0	0	0	0	0	0	489	587	270	189	
Other	1	25	0	0	0	0	0	27	60	0	44	
Total direct payments	1,811	418	1,030	1,491	3,600	2,117	7,827	6,746	5,862	4,137	5,066	
Purchases (net)	10	1,681	1,602	2,031	2,540	1,470	1,331	1,670	-479	-1,061	193	
Producer storage payments	247	254	32	679	964	268	329	485	832	498	341	
Processing, storage, & transportation	128	259	323	355	665	639	657	1,013	1,659	991	697	
Operating expense	97	157	159	294	328	362	346	457	535	568	583	
Interest expenditure	238	518	220	-13	3,525	1,064	1,435	1,411	1,219	444	694	
Export programs	417	-669	-940	65	398	743	134	102	276	281	197	
Other	662	200	1,436	-265	-1,607	679	-648	329	305	2,816	2,409	
Total	3,612	2,752	4,036	11,652	18,851	7,315	17,683	25,841	22,408	13,109	11,129	

E = estimated in the fiscal 1989 Mid-Session Review. Fiscal 1989 estimated outlays do not incorporate the impact of pending drought legislation. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 447-5148.

Transportation

Table 38.—Rail Rates: Grain & Fruit/Vegetable Shipments

	Annual			1987			1988				
	1985	1986	1987	Oct	May	June	July	Aug	Sept	Oct	
Rail freight rate index 1/ (Dec 1984=100)											
All products	100.0	100.7	100.1	100.2	105.2	104.9	105.2 P	105.0 P	105.3 P	105.4 P	
Farm products	99.0	99.6	99.3	99.8	104.4	104.5	103.3 P	103.5 P	107.5 P	107.5 P	
Grain	98.3	98.9	98.7	99.2	104.1	104.3	102.8 P	103.0 P	107.8 P	107.8 P	
Food products	100.1	99.9	98.6	98.6	103.9	103.7	103.7 P	103.7 P	103.7 P	103.7 P	
Grain shipments											
Rail carloadings (thou cars) 2/	22.9	24.4	29.1	32.8	31.9 P	31.9 P	29.7 P	27.1 P	28.9 P	30.7 P	
Fresh fruit & vegetable shipments											
Piggy back (thou cwt) 3/ 4/	602	629	584	426	768 P	789 P	662 P	509 P	489 P	404 P	
Rail (thou cwt) 3/ 4/	532	563	656	633	715 P	782 P	481 P	154 P	566 P	585 P	
Truck (thou cwt) 3/ 4/	8,298	9,031	9,237	8,562	11,554 P	11,494 P	9,231 P	8,649 P	8,369 P	8,711 P	
Cost of operating trucks hauling produce 5/											
Owner operator (cts/mile)	116.1	113.1	116.3	117.9	118.5	118.5	118.2	118.6	118.5	118.6	
Fleet operation (cts/mile)	116.7	113.6	116.5	117.8	118.3	118.0	118.2	118.2	118.6	118.3	

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads.

3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1987 and 1988. 5/ Office of Transportation, USDA. P = preliminary.

Information contact: T.Q. Hutchinson (202) 786-1840.

Indicators of Farm Productivity

Table 39.—Indexes of Farm Production Input Use & Productivity

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 2/
1977=100										
Farm output	111	104	118	116	96	112	118	111	110	97
All livestock products 3/	104	108	109	107	109	107	110	110	113	116
Meat animals	103	107	106	101	104	101	102	100	102	105
Dairy products	101	105	108	110	114	110	117	116	116	118
Poultry & eggs	114	115	119	119	120	123	128	133	144	148
All crops 4/	113	101	117	117	88	111	118	109	106	87
Feed grains	116	97	121	122	67	116	134	123	105	—
Hay & forage	108	98	106	109	100	107	106	106	103	—
Food grains	108	121	144	138	117	129	121	106	106	—
Sugar crops	94	97	107	96	93	95	97	106	112	—
Cotton	102	79	109	85	55	91	94	69	104	—
Tobacco	80	93	108	104	75	90	81	63	64	—
Oil crops	129	99	114	121	91	106	117	110	106	—
Cropland used for crops	100	101	102	101	88	99	98	94	88	—
Crop production per acre	113	100	115	116	100	112	120	116	122	—
Farm input 5/	105	103	102	99	97	95	92	87	86	—
Farm real estate	103	103	104	102	101	97	95	93	92	—
Mechanical power & machinery	104	101	98	92	88	84	80	75	72	—
Agricultural chemicals	123	123	129	118	105	121	123	111	111	—
Feed, seed & livestock purchases	115	114	108	108	110	106	106	103	108	—
Farm output per unit of input	105	101	116	118	99	118	128	127	127	—
Output per hour of labor										
Farm 6/	113	109	123	125	99	121	139	139	142	—
Nonfarm 7/	99	99	100	99	102	105	106	108	108	—

1/ For historical data and indexes, see Economic Indicators of the Farm Sector: Production and Efficiency Statistics, 1986, ECIFS 5-6. 2/ Preliminary indexes for 1988 based on unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. — = not available.

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Food Supply and Use

Table 40.—Per Capita Consumption of Major Food Commodities (Retail Weight)

	1979	1980	1981	1982	1983	1984	1985	1986	1987 2/
Pounds									
Meats 3/	144.7	147.4	145.0	138.4	143.2	142.8	144.1	140.2	135.4
Beef	78.0	76.4	77.1	76.8	78.2	78.1	78.8	78.4	73.4
Veal	1.7	1.5	1.6	1.7	1.6	1.8	1.8	1.9	1.5
Lamb & mutton	1.3	1.4	1.4	1.5	1.5	1.5	1.4	1.4	1.3
Pork	63.7	68.1	64.9	58.5	61.9	61.5	62.0	58.6	59.2
Fish (edible weight)	13.0	12.8	12.9	12.3	13.1	13.7	14.4	14.7	15.4
Canned	4.8	4.5	4.8	4.3	4.8	4.9	5.1	5.4	5.1
Fresh and frozen	7.8	8.0	7.8	7.7	8.0	8.5	9.0	9.0	10.0
Cured	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Poultry products									
Eggs	35.1	34.4	33.5	33.5	33.0	32.9	32.2	31.7	31.6
Chicken (ready-to-cook)	50.3	49.8	51.3	52.7	53.4	55.2	57.6	58.7	62.7
Turkey (ready-to-cook)	9.9	10.5	10.7	10.8	11.2	11.3	12.1	13.3	15.1
Dairy products									
Cheese (excluding cottage)	17.2	17.5	18.2	19.9	20.5	21.4	22.5	23.0	24.0
Fluid whole milk 4/	155.6	147.0	139.6	134.1	130.8	126.6	122.7	115.4	109.9
Fluid lowfat milk 5/	88.1	91.2	92.9	93.1	95.9	99.1	104.6	110.4	113.6
Fluid cream 6/	3.3	3.4	3.4	3.5	3.6	4.0	4.3	4.6	4.7
Yogurt	2.5	2.6	2.5	2.6	3.2	3.7	4.0	4.3	4.6
Ice cream (product weight)	17.3	17.5	17.4	17.6	18.0	18.1	18.1	18.4	18.3
Fats & oils (fat content only) 7/	56.4	57.2	57.7	58.2	60.0	58.6	64.0	64.1	62.7
Butter (product weight)	4.5	4.5	4.2	4.3	4.9	4.9	4.9	4.6	4.6
Margarine (product weight)	11.2	11.3	11.1	11.0	10.4	10.4	10.8	11.4	10.5
Shortening	18.4	18.2	18.5	18.6	18.5	21.2	22.8	22.0	21.3
Lard (direct use)	2.5	2.6	2.5	2.5	2.1	2.1	1.8	1.7	1.8
Edible tallow (direct use)	0.4	1.1	1.0	1.3	2.1	1.7	1.9	1.8	1.0
Salad & cooking oils	20.8	21.2	21.8	21.8	23.5	19.8	23.5	24.1	25.2
Selected fresh fruits 3/	80.8	86.4	83.1	83.7	88.4	87.8	86.3	93.2	98.6
Citrus	23.9	27.9	24.1	23.9	28.3	23.2	22.6	26.6	27.2
Apples	16.8	18.3	16.1	17.1	17.6	17.6	16.6	17.3	20.3
Other noncitrus	40.2	40.2	42.9	42.7	42.4	47.0	47.1	49.3	51.2
Canned fruit 8/	10.9	10.7	10.0	9.7	9.2	8.9	8.5	8.4	8.7
Frozen fruit	1.0	1.1	1.1	1.3	1.2	1.2	1.3	1.4	1.9
Dried fruit	2.3	2.2	2.5	2.7	2.8	2.9	2.9	3.0	3.1
Selected fresh vegetables 9/	71.3	72.8	71.5	74.2	74.7	78.8	78.8	79.9	78.6
Selected vegetables for processing 3/ 10/	106.4	105.2	100.2	98.5	100.4	108.6	104.4	103.4	104.2
Tomatoes for processing 10/ 11/	64.3	63.6	59.3	60.1	60.8	68.4	63.1	63.4	64.6
Cucumbers for pickling 10/	5.9	5.6	5.7	5.7	5.8	5.8	5.8	5.3	5.1
Other vegetables for canning 10/ 12/	21.1	21.4	20.7	19.2	19.0	17.0	18.7	19.0	17.4
Vegetables for freezing 10/ 13/	15.1	14.6	14.6	13.6	14.8	17.4	16.9	15.8	17.1
White potatoes									
Fresh	47.6	49.0	43.8	44.8	47.9	46.8	44.7	47.6	45.1
Frozen	20.7	17.9	19.1	20.1	19.1	20.7	22.0	22.0	23.2
Canned	1.3	1.2	1.1	1.2	1.2	1.1	1.2	1.1	1.1
Dehydrated	1.5	1.3	1.5	1.4	1.4	1.4	1.6	1.5	1.5
Chips & shoestrings	4.1	4.1	4.1	4.2	4.4	4.4	4.3	4.5	4.3
Sweet potatoes 10/	5.2	4.4	4.7	5.4	4.7	4.7	5.3	4.8	4.4
Grains									
Wheat flour 14/	117.2	116.8	115.8	116.7	117.4	118.1	123.3	123.6	128.0
Rice	9.4	9.4	11.0	11.8	9.7	8.6	9.1	11.6	13.4
Pasta	10.2	10.0	10.0	9.9	10.5	11.3	12.9	14.4	17.1
Breakfast cereals	12.9	12.9	13.0	13.1	13.4	14.0	14.4	14.8	15.2
Caloric & low-calorie sweeteners 15/ 16/	134.4	132.8	133.2	132.5	137.4	142.5	149.3	147.7	151.6
Sugar (refined) 17/	89.3	83.6	79.3	73.6	71.0	67.6	63.4	60.8	62.4
Corn sweeteners (dry weight) 15/ 18/	36.3	40.2	44.5	48.1	52.1	57.8	66.5	67.1	68.8
Low-calorie sweeteners 19/	7.3	7.7	8.2	9.5	12.9	15.8	18.1	18.5	19.0
Other									
Coffee	8.6	7.7	7.7	7.6	7.6	7.5	7.6	7.6	7.6
Cocoa (chocolate liquor equiv.)	2.7	2.7	2.9	3.0	3.2	3.4	3.7	3.8	3.9
Peanuts (shelled)	5.9	4.8	5.5	5.9	5.9	6.0	6.3	6.4	6.4
Dry edible beans, peas, & lentils 10/	6.8	5.8	5.8	6.9	7.2	5.5	7.4	7.1	8.3
Soft drinks (gals.)	27.0	27.1	27.1	26.9	26.9	27.2	29.1	30.3	..
Citrus juice (gals.)	5.0	5.1	4.8	5.1	5.6	4.8	5.2	5.6	5.3

1/ Quantity in pounds, retail weight unless otherwise stated. Data on calendar year basis except fresh citrus fruits, apples, peanuts, and rice which are on a crop-year basis. 2/ Preliminary. 3/ Total may not add because of rounding. 4/ Plain and flavored. 5/ Lowfat, skim, buttermilk, and flavored drinks. 6/ Heavy cream, light cream, and half and half. 7/ Includes 80 percent of the product weight of butter and margarine and all of the product weight of other fats and oils, some of which are not reported separately. 8/ Excludes apples, applesauce, cranberries, pineapple, and citrus sections. 9/ Includes asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, onions, and tomatoes. 10/ Farm weight. 11/ Used in such processed products as ketchup, canned tomatoes, tomato paste, and tomato puree. 12/ Includes asparagus, carrots, green peas, snap beans, and sweet corn. 13/ Includes asparagus, broccoli, carrots, cauliflower, green peas, snap beans, and sweet corn. 14/ White, whole wheat, semolina, and durum flour. 15/ Dry weight equivalent. 16/ Includes edible syrups and honey. 17/ Beginning 1982, includes small amount of refined sugar contained in imported blends and mixtures, including sucrose-dextrose blends, sugar-sweetened tea mixes, and flavored syrups in consumer size containers. 18/ High fructose, glucose, and dextrose. 19/ Sugar sweetness equivalent. Assumes saccharin is 300 times as sweet as sugar; and aspartame, 200 times as sweet as sugar. .. = not available.

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